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ABSTRACT

During the 1982-83 school year, the California Achievement Test (CAT) was administered to students attending Montgomery County (Maryland) Public Schools (MCPS) in grades 3,5,8 and 11. This report describes and displays the county-wide and school test results which are further broken down by racial/ethnic group and sex. An analysis of the data found that MCPS student performance had improved slightly (1 percent) from the previous year. Of the students tested, 78 percent tested at or above the national norm average. Similarly, the average scores for each racial/ethnic group in MCPS were at or above the national norm average except for Black students in grade 11. Performance of White students in MCPS was higher than that of MCPS Hispanic or Black students. Asian students scored slightly higher than White students in all grades. However, when compared to their counterparts nationally, MCPS Hispanic and Black students performed better than White students. A breakdown by sex found that females scored slightly higher than males on the total test in all grades tested. (EGS)

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MONTGOMERY COUNTY
PUBLIC SCHOOLS
ROCKVILLE, MARYLAND

Annual Test Report

1982-83

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WILMER S. CODY
Superintendent of Schools

Prepared by the Department of Educational Accountability

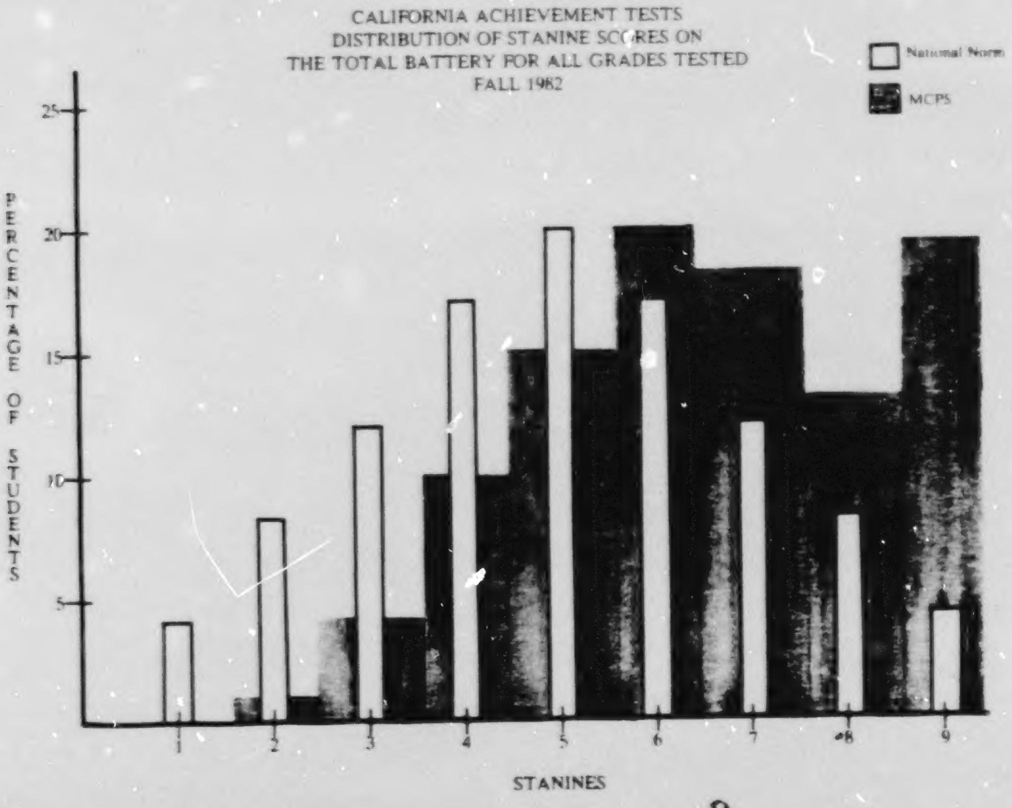
EXECUTIVE SUMMARY

The Annual Test Report 1982-83 describes the results from administering the California Achievement Tests (CAT) in the Montgomery County Public Schools. The CAT is given in the fall in Grades 3, 5, and 8 under a state requirement, and in Grade 11 in December under a local requirement. Some of the features of the report include:

- Breakdowns of county test results by racial/ethnic groups, including a comparison of performance by MCPS black and Hispanic students with that of their counterparts in the national norm sample
- Elementary school results broken down for students tested in a school in both Grades 3 and 5 and for students tested in those schools in only Grade 3 or Grade 5
- Graphic presentations of both county and school data

Countywide Results

Performance by MCPS students on the CAT improved slightly from an already high level. This was shown by the fact that 78 percent of the MCPS students tested scored at or above the national norm average. This was a 1 percent increase from the previous year. Additionally, the MCPS average on the total test ranged from the 81st percentile in Grades 3 and 5 to the 76th percentile in Grade 11. These average scores were increases also. These scores are well above the national average. This is shown in the figure below that compares the MCPS score distribution to the national distribution. MCPS has many more scores at the upper end.



CALIFORNIA ACHIEVEMENT TESTS
DISTRIBUTION OF STANINE SCORES ON
THE TOTAL BATTERY FOR ALL GRADES TESTED
FALL 1982

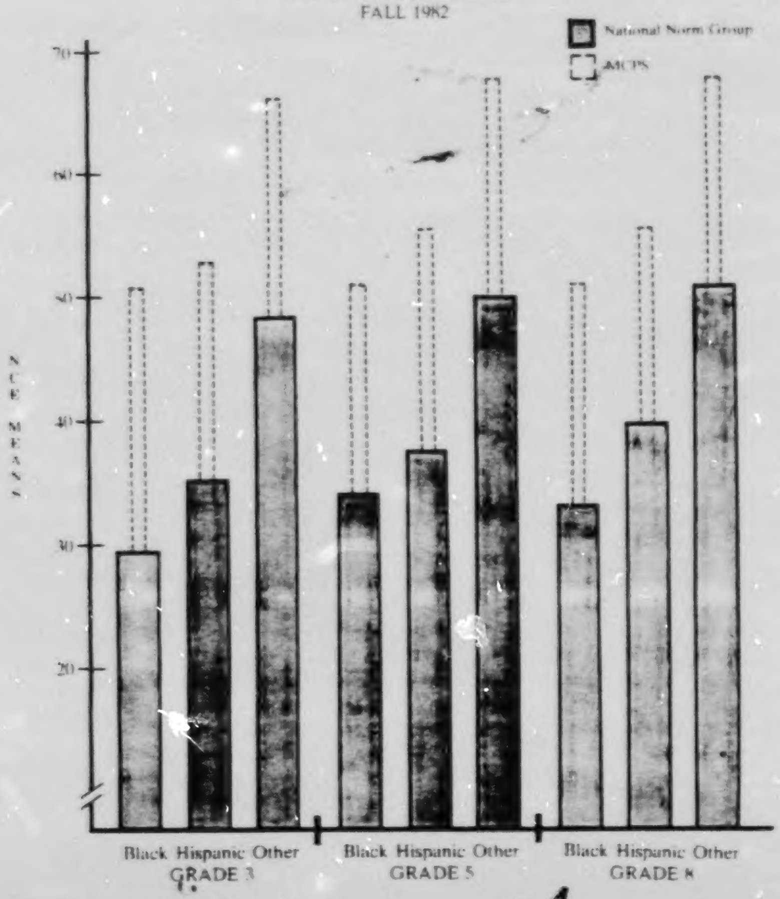
While the county averages were high, they probably would have been even higher, at least in Grade 3, if there were not a strong "ceiling effect" on some CAT subtests. This effect produced artificially low scores on these subtests because the test norms do not permit high achieving students to score as high as they should.

Performance by Racial/Ethnic Groups

The average scores for each major racial/ethnic groups in MCPS were at or above the national norm group average except for black students in Grade 11. Even in that case, the difference was not substantial. Scores in 1982 were generally at their highest for black and white students since we started administering the CAT in 1980. The three year trends for Asian students were mixed across the grades while scores for Hispanic students declined in all four grades. However, the declines for the last two groups are the result of new students entering MCPS. The Asian and Hispanic students who stay in MCPS from Grade 3 to Grade 5 progress as well as or better than do white students.

The performance of white students in MCPS was substantially higher than that of MCPS Hispanic and black students. However, MCPS Hispanic and black students scored substantially higher than their counterparts nationally. Additionally, when compared to their counterparts nationally, MCPS Hispanic and black students did better than MCPS white students. The comparison of results for MCPS and national racial/ethnic groups is shown in the table below.

CALIFORNIA ACHIEVEMENT TESTS
COMPARISON OF BLACK, HISPANIC,
AND "OTHER STUDENTS" WITH
NATIONAL NORM GROUP
FALL 1982



Asian students in MCPS scored slightly higher than white students in all grades, the largest difference appearing in Grade 3.

Score Differences by Sex

Females scored slightly higher than males on the total test in all grades tested. The largest differences were in language skills. In math the two groups scored almost the same.

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INTRODUCTION

The Annual Test Report, 1982-83 describes the results from administering the California Achievement Tests (CAT) in the Montgomery County Public Schools (MCPS). The report contains several analyses of the results from the CAT administration in Grades 3, 5, 8, and 11. Overall countywide results are presented and they are also broken down by racial/ethnic and sex classifications. School results are presented in four forms:

1. Average subtest scores
2. Total Battery interquartile ranges
3. Longitudinal trends (average score change for students tested in the same elementary school twice)
4. Nonlongitudinal trends (difference between average scores for students transferring into and out of each school)

There are two appendices. The first one contains tables with detailed summary data. The second one is a glossary of technical testing terms which provides the definition, use(s), and some interpretive precautions to be observed for each term.

DESCRIPTION OF CALIFORNIA ACHIEVEMENT TESTS

The California Achievement Tests (CAT) are standardized achievement tests required by the Maryland State Department of Education to be administered to all students in Grades 3, 5, and 8 in the fall. Students in Grade 11 are given the CAT in December under a local requirement. The only students exempted from this testing are those with limited English proficiency and those special education students who are unable to function on the test. The 1982-83 school year was the third year this new edition (1977 copyright) of the CAT was administered in MCPS. This test replaced the Iowa Tests of Basic Skills (ITBS) and Tests of Academic Progress (TAP), which had been given for the previous several years.

The CAT, like the ITBS and TAP, is a group-administered, norm-referenced test (NRT). Norm-referenced means that a student's scores are given interpretable meaning by being compared with the scores of a group of students. In the case of the CAT, this group is the nationwide sample on whom the test was normed in the 1976-77 school year. This comparison is most easily seen when results are reported as percentile ranks (PR).[1] These scores are presented in the tables in this chapter because of their ease of interpretation. Also reported are Normal Curve Equivalent (NCE) scores. These are used to make comparisons across subtests and groups of students.[2] A third type of score, reported in some tables, is the Scale Score (SS). This is included to provide data consistent with that to be reported by the Maryland State Department of Education.

The CAT measures five major content areas. Some of these contain more than one subtest. The content areas and brief descriptions of their subtests follow:

Reading

Phonic Analysis (Grade 3 only) measures how well a student can relate spoken language with written language.

Structural Analysis (Grade 3 only) measures how well a student can use structural clues (parts of words) to pronounce and understand unfamiliar words.

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[1] Percentile ranks indicate the percentage of students in the national norm group who scored lower than a given score. In the case of this report, the given score is the mean (average) of the county, of a group within the county (e.g., race, sex), or of a school. A more detailed discussion of statistical terms can be found in Appendix B.

[2] Normal Curve Equivalent scores are used for these comparisons because they are on an equal interval scale. This means that a change of X points is the same, no matter what the scores are. This is not true for other standardized scores such as percentile ranks. For example, on the percentile rank scale, the difference between 85 and 95 is much larger than the difference between 45 and 55. On the NCE scale, both of these differences represent the same amount of performance increase. See Appendix B for a detailed discussion.

Reading Vocabulary measures how well a student can use the context of a phrase to identify the meaning of unfamiliar words.

Reading Comprehension measures how well a student can recall facts, understand what is implied, and evaluate and make judgments from passages he/she reads.

Spelling measures how well a student can recognize incorrectly spelled words.

Language

Language Mechanics measures how well a student can recognize capitalization and punctuation mistakes.

Language Expression measures how well a student understands sentence structure, word usage, and paragraph organization.

Mathematics

Mathematics Computation measures how well a student can add, subtract, multiply, and divide.

Mathematics Concepts and Applications measures how well a student can apply what he/she has learned in math to the solution of problems.

Reference Skills (Grades 5, 8, and 11 only) measures how well a student can find information by using ten different sources: title pages, copyright pages, tables of contents and indexes, dictionaries, maps, tables, diagrams, library catalog cards, reader's guides, and forms.

ANALYTIC CONSIDERATIONS

A tendency in analyzing test data is to compare results across grades and across years. When performing this kind of analysis it is necessary to consider potential interpretation problems that can prevent the use of the results for making judgements about program quality. These problems are created by:

1. Differences in the ability of the norm groups for the tests used across grade levels
2. Differences in the ability of the students tested in each grade each year
3. Differential degree of match between local curriculum and the content of the test at various grade levels

Differences in norm group ability. Since each test in each grade is normed on a different group of students, the ability of the various norm groups can play a role in interpreting standardized test results. The differences in the abilities of these norm groups mean that students taking the tests at different times and grade levels are being compared to different standards. For example, if test A was developed on a smarter group of students than was test B, a student needs to know more to get a high standardized score on test A than on test B. Thus, higher scores on test B could be a result of a student's being compared with a group that is not as smart; it would not necessarily be an indication of higher achievement.

Differences in ability of groups tested. Differences in the ability of the groups being tested each year can account for score increases and declines across years. Such score changes should be viewed as indications of changes in achievement level that are related to group or individual characteristics, not to program quality.

Test content/curriculum match. The match between standardized test content and any local curriculum is never complete. Differences in the degree of match for different tests or test levels mean that scores on the tests or levels may vary simply because students at one grade level are taught more of the skills measured by the test. Lower scores on one level of the test may not indicate a decline in achievement or quality of instruction but simply may reflect this difference in match.

COUNTY RESULTS

Overall County Data

The major findings from analyses of countywide results from the administration of the California Achievement Tests in the fall of 1982 are as follows:

- Seventy-eight percent of the MCPS students tested scored at or above the national norm average on the Total Battery. This was an increase of 1 percent from the previous year for the second year in a row.

- County average (mean) scores once again showed a slight increase from the previous year on the Total Battery and in all major subject areas.

- County averages on several subtests were artificially depressed because of the ceiling effect[3] on those subtests.

MCPS performance compared to national performance. The only national data that is available to compare with MCPS results is from the national norm group.[4] In that group 50 percent of the students scored at or above the average, i.e., 50th percentile. The percentage of students scoring at or above this point on the Total Battery in MCPS averaged 78 across all grades tested and ranged from 80 in Grade 5 to 75 in Grade 11. This high level of performance is shown in Figure 1.1 where the percentage of students scoring at each stanine is shown for the national group and for the four MCPS grades combined. The national stanine distribution is symmetrical with equal percentages falling above and below the average of five. The distribution for MCPS is very different, with the percentage scoring in the high stanines (i.e., 7, 8, and 9) much higher than the national distribution. For example, 19 percent of the MCPS students scored at the ninth stanine compared to four percent nationally. The pattern is reversed for the low stanines, with only one percent of the MCPS students scoring in the bottom two stanines.

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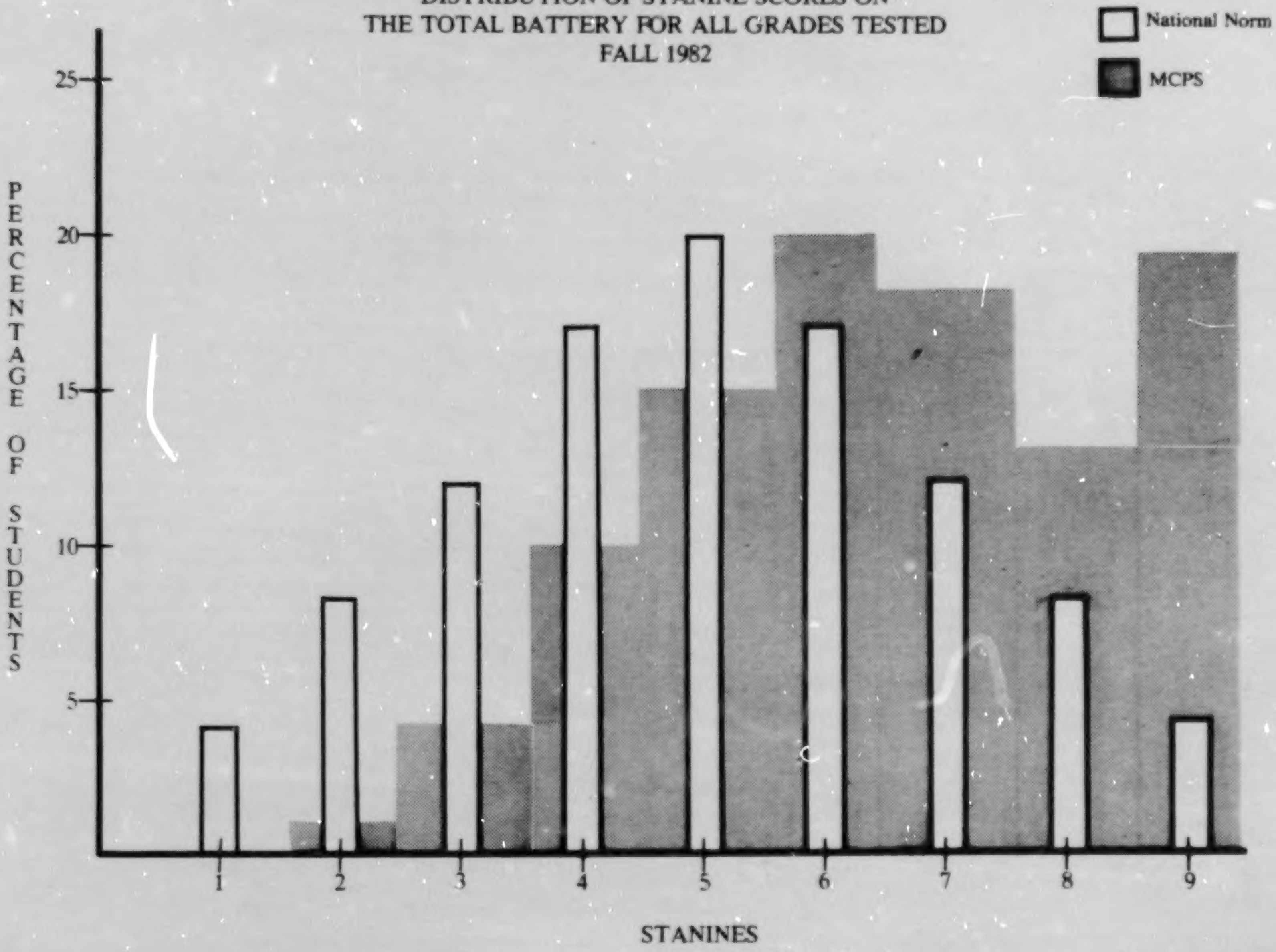
[3] A ceiling effect is present when it is not possible for a student to score at the maximum (99th) percentile even if he/she answers all questions correctly. This effect also exists if only one or two careless errors can reduce a student's standardized score substantially, e.g., from stanine 9 to 6 or 7. This is caused by a test being too easy. On such a test, many people achieve a perfect or near perfect score, making a range of percentile ranks possible. When this happens, the conventional norming procedure is to assign the middle percentile rank to the perfect score. For example, on the California Achievement Tests, Level 13 Phonic Analysis subtest, about eight percent of the norm population got a perfect score. According to statistical theory these students could be anywhere from the 92nd to 99th percentile. The middle percentile rank, 96, was thus assigned to the perfect score.

[4] It should be noted that the norm group is not necessarily representative of overall national performance. Test publishers generally have to use whatever districts will agree to participate in norming samples. There is no guarantee that they have been able to include the proper proportion of high, middle, and low scoring students. That is one of the reasons for Potential Problem Number 1 discussed in the "Analytic Considerations" section above.

FIGURE 1.1
CALIFORNIA ACHIEVEMENT TESTS DISTRIBUTION OF STANINE SCORES ON THE TOTAL BATTERY FOR ALL GRADES TESTED
FALL 1982



The pattern of results does not change very much across the major subjects, with 79 percent being at or above the national average in language and math and 77 percentage meeting that criterion in reading. Table A1 in the Appendix shows the number and percentage of students scoring at or above the national average by major subject area in each grade.

Historical trends within MCPS. The students tested in the fall of 1982 improved slightly from the already high level of performance demonstrated by students tested in the previous two years. In all four grades tested, the average Total Battery score increased from 1980. The three year trends are shown in Figure 1.2.

Of the 33 subtests administered across four grades, there was an increase in the county average from 1980 to 1982 in 28. The average for the other five subtests remained the same. The average improved in all four grades in Spelling, Language Mechanics, Math Computation, and Math Concepts and Application. The detailed data showing historical trends are found in Table A2 in Appendix A.

When reviewing these historical trends the potential analytic problems discussed above should be kept in mind. The encouraging trends may be the result of excellent teaching. However, they also may be because different students are tested each year and the new group of students is slightly smarter.

Influence of ceiling effect. The ceiling effect was strongest in Grade 3 on the reading and language subtests (see Figure 1.3). Scores of from 27 to 57 percent of the students tested were possibly influenced by the ceiling effect on these subtests. Reference Skills scores in Grades 5, 8, and 11 were similarly affected with from 31 to 49 percent of the scores influenced. See Table A3 in Appendix A for detailed data.

Data by Racial/Ethnic Group

MCPS began reporting test data by racial/ethnic groups in 1978 as part of the system-wide effort to monitor educational equity. The change in tests three years ago has not led to any significant change in the results from those reported in earlier years. The results for the fall of 1982 administration are highlighted by the following:

- Average scores for all racial/ethnic groups, except for black students in Grade 11, were at or above the overall national norm average on the Total Battery. The Grade 11 black students were only slightly below the national norm average.

- Compared to 1980, average scores on the Total Battery increased slightly in all four grades for black and white students.

- White students scored substantially[5] higher than black and Hispanic students on the Total Battery in all grades tested. Asian students scored slightly higher than white students in all grades on the Total Battery.

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[5] Substantial is defined here as at least 8 NCE points. This is more than one-third of a standard deviation, a criterion often used to indicate meaningful differences.

FIGURE 1.2
HISTORICAL TRENDS FOR THE
CALIFORNIA ACHIEVEMENT TESTS
TOTAL BATTERY, 1980-1982, ALL STUDENTS

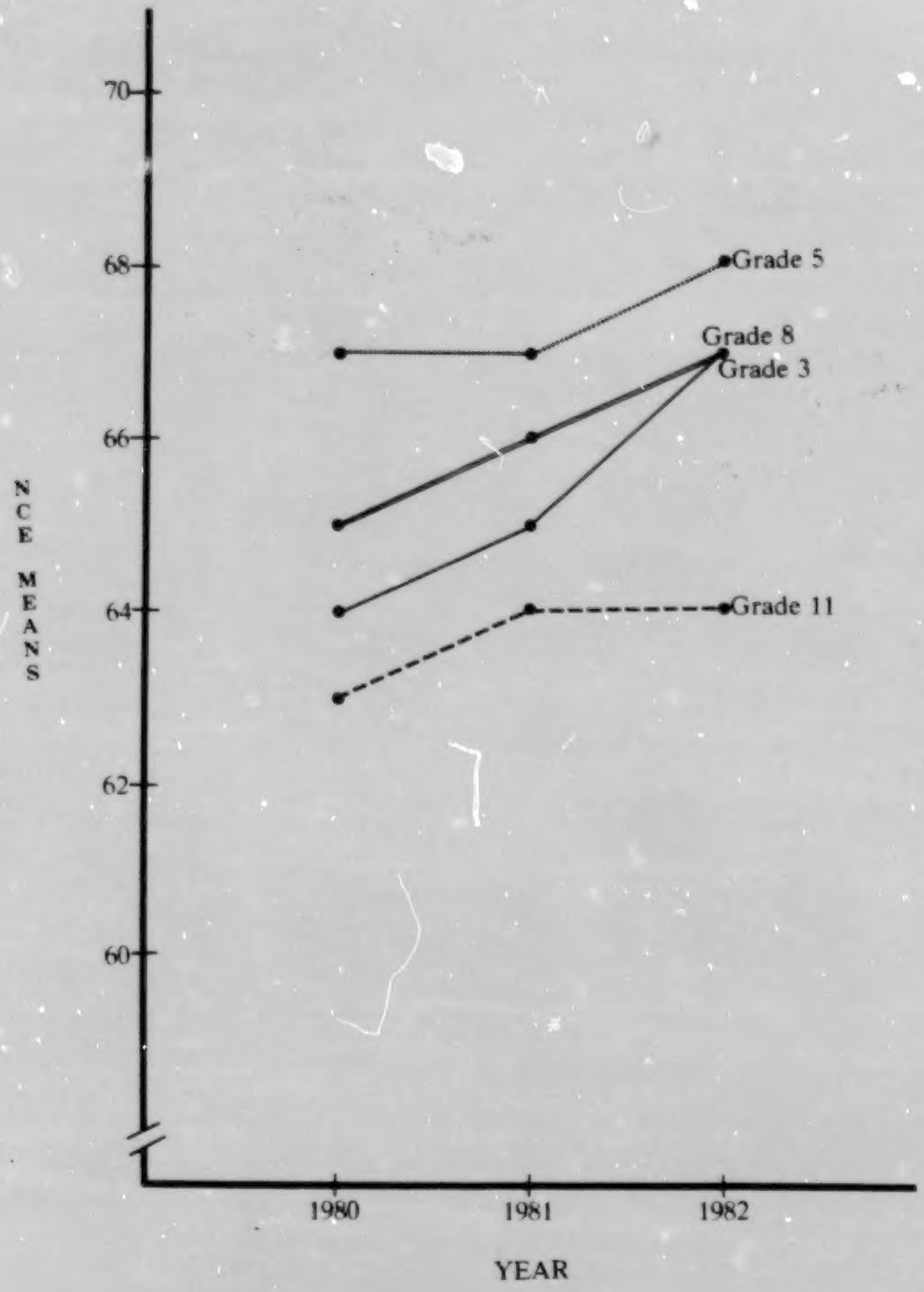
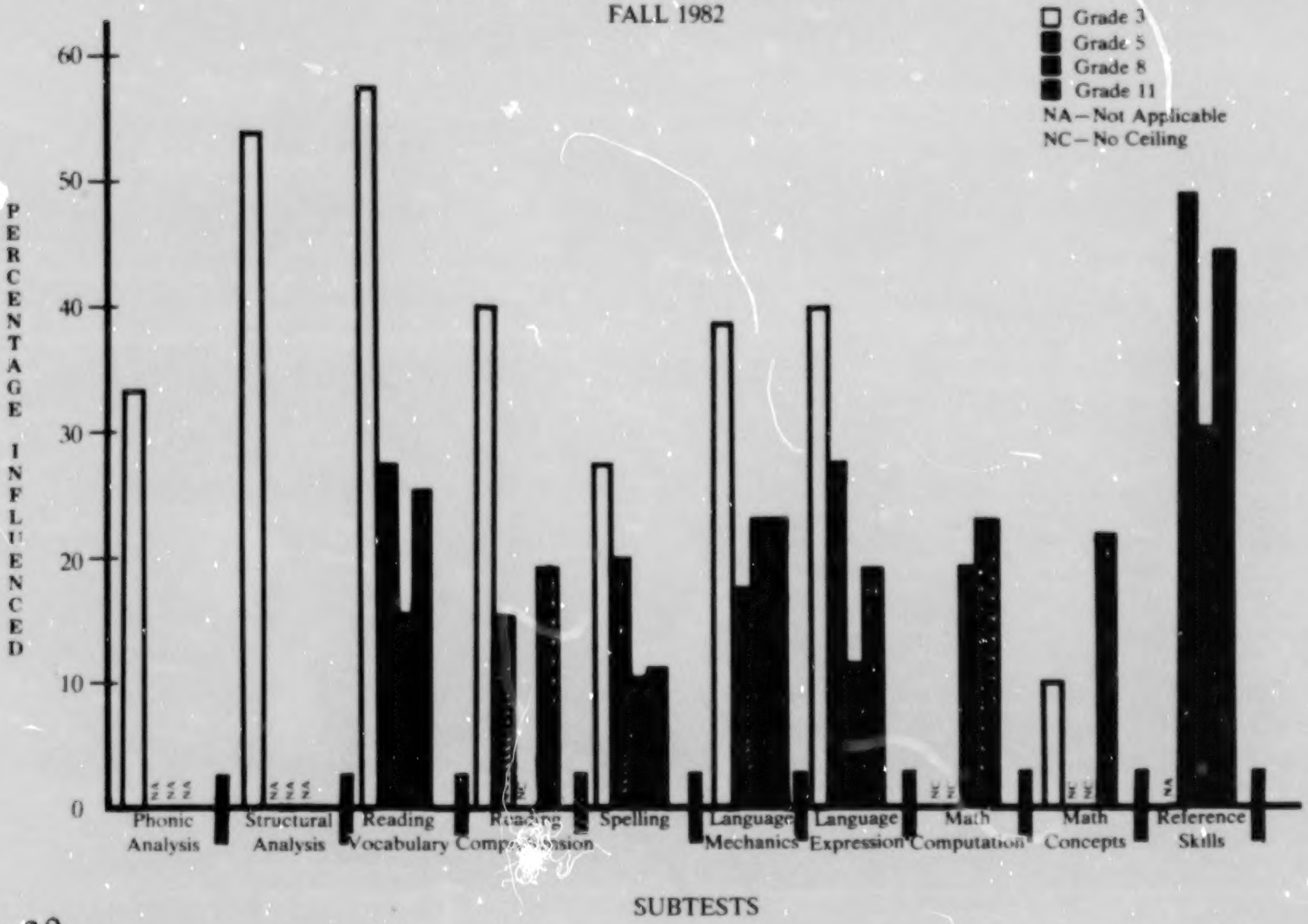


FIGURE 1.3
CALIFORNIA ACHIEVEMENT TESTS
PERCENTAGE OF STUDENTS INFLUENCED BY
CEILING EFFECT BY SUBTEST
FALL 1982



- The score difference between black and white and Asian and white students tended to decrease slightly from 1980. The score difference between Hispanic and white students tended to increase slightly.

- Average scores for black, white and Hispanic students in MCPS are well above the national norm averages for members of those racial/ethnic groups. There are no national norms for Asian students.

- MCPS black and Hispanic students performed better, compared to their racial/ethnic counterparts in the national norm group, than did MCPS white students.

Performance of MCPS racial/ethnic groups compared to overall national norm group performance. The average Total Battery scores for the major racial/ethnic groups in MCPS were at or above the average of the national norm group. The one exception to this was the black students in Grade 11 whose average of 47 NCE points is slightly below the national average. This score pattern was the same for the major subject areas. Tables A4 to A7 in Appendix A have the detailed results by subtest for each race.

Score trends for MCPS racial/ethnic groups. The overall county trend of a slight increase from 1980 to 1982 on the Total Battery was generally reflected in the results for black and white students. Black students had a 2- to 3-NCE-point increase in each grade. White students had a 1- to 2-NCE-point increase in each grade. Asian students had small score increases in two grades and small decreases in the other two grades. Their score changes ranged from one to three points. Scores for Hispanic students decreased from one to four points across all grades tested. The historical trends for each group are shown in Figures 1.4 to 1.7.

Another way to look at score trends for the various racial/ethnic groups is by tracing the results for the same students for two different test administrations, i.e., longitudinal analysis. This overcomes the problem of comparing scores for students with possibly different levels of ability. However, score changes in a longitudinal analysis could be the result of differences in the norms at each grade and, thus, still make interpretation difficult. Some meaning can be derived from group trends if these differences can be taken into account. One way to do this is to establish a baseline against which to compare each group trend. The county longitudinal trend can be used as this baseline. Since white students make up more than 80 percent of the students tested, their trend is usually the same as the county trend. The three minority groups generally had trends as good as or better than the trend for white students on the total test. Figure 1.8 illustrates these trends. Longitudinal and nonlongitudinal results for the county and by race are shown in Tables A8 and A9.

Majority/Minority score comparisons within MCPS. White students averaged between 17 (Grade 3) and 19 (Grade 11) NCE points higher than black students on the Total Battery. These differences are substantial and have remained fairly constant since 1980. The largest change has been a two point decline in Grade 11. This pattern was similar for each subject area.

White students averaged 12 to 14 NCE points higher than Hispanic students on the Total Battery. In all grades the differences were larger than in 1980. The largest increase was six points in Grade 5. This pattern was similar for each subject area.

FIGURE 1.4
HISTORICAL TRENDS FOR THE CALIFORNIA ACHIEVEMENT TESTS TOTAL BATTERY, 1980-1982, ASIAN STUDENTS

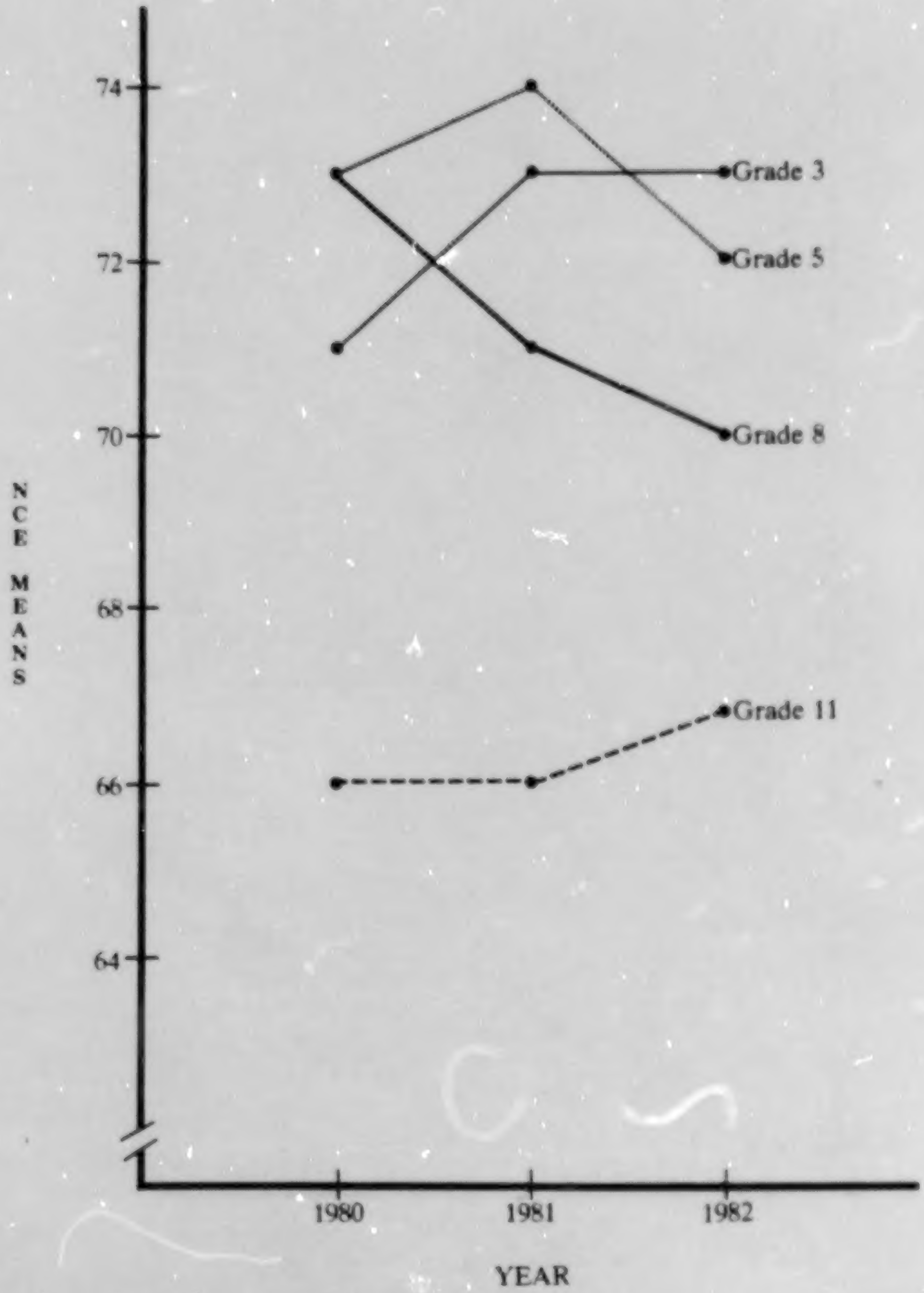


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FIGURE 1.5
HISTORICAL TRENDS FOR THE CALIFORNIA ACHIEVEMENT TESTS TOTAL BATTERY, 1980-1982, BLACK STUDENTS

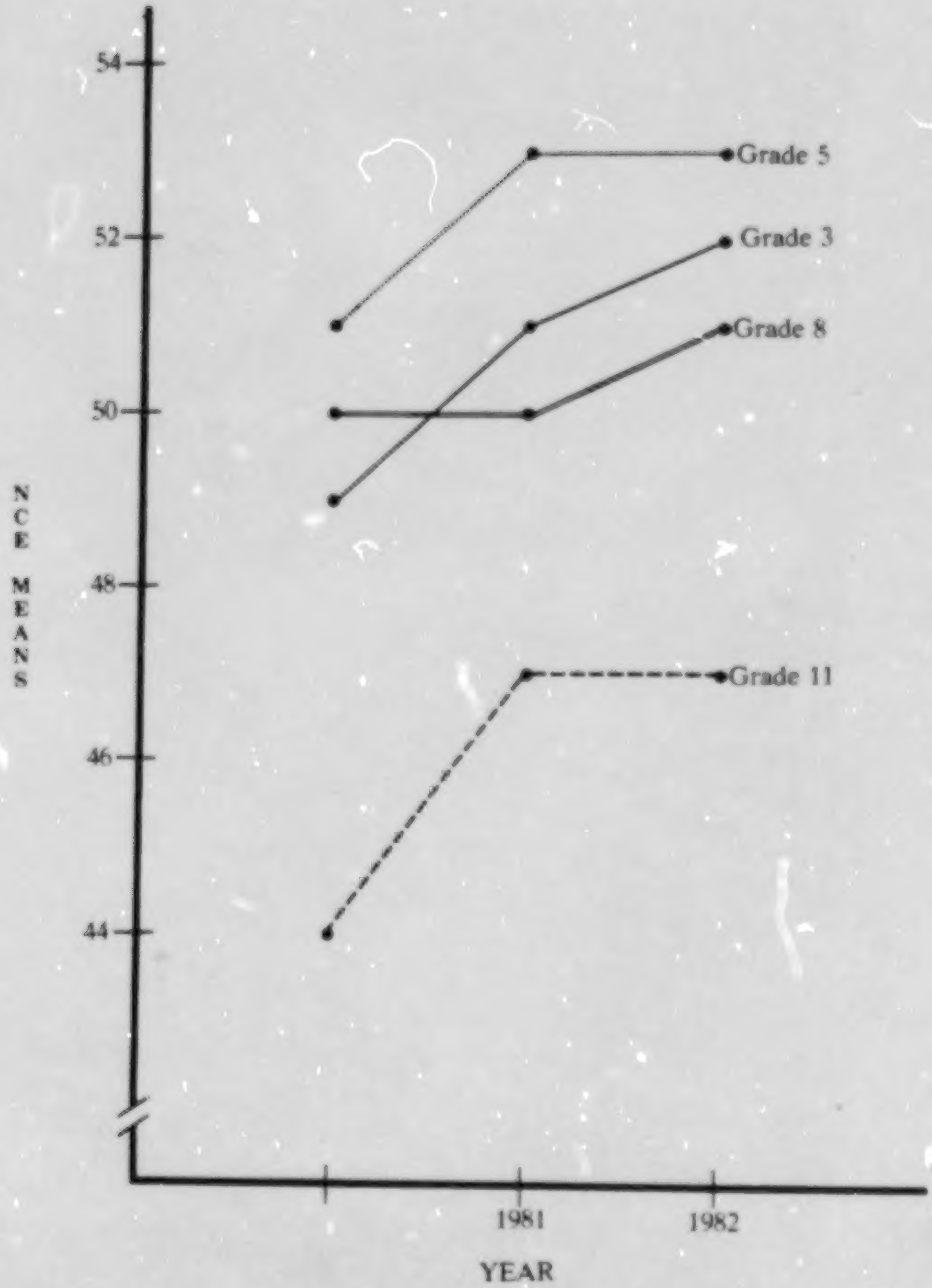

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FIGURE 1.6
HISTORICAL TRENDS FOR THE CALIFORNIA ACHIEVEMENT TESTS TOTAL BATTERY, 1980-1982, HISPANIC STUDENTS

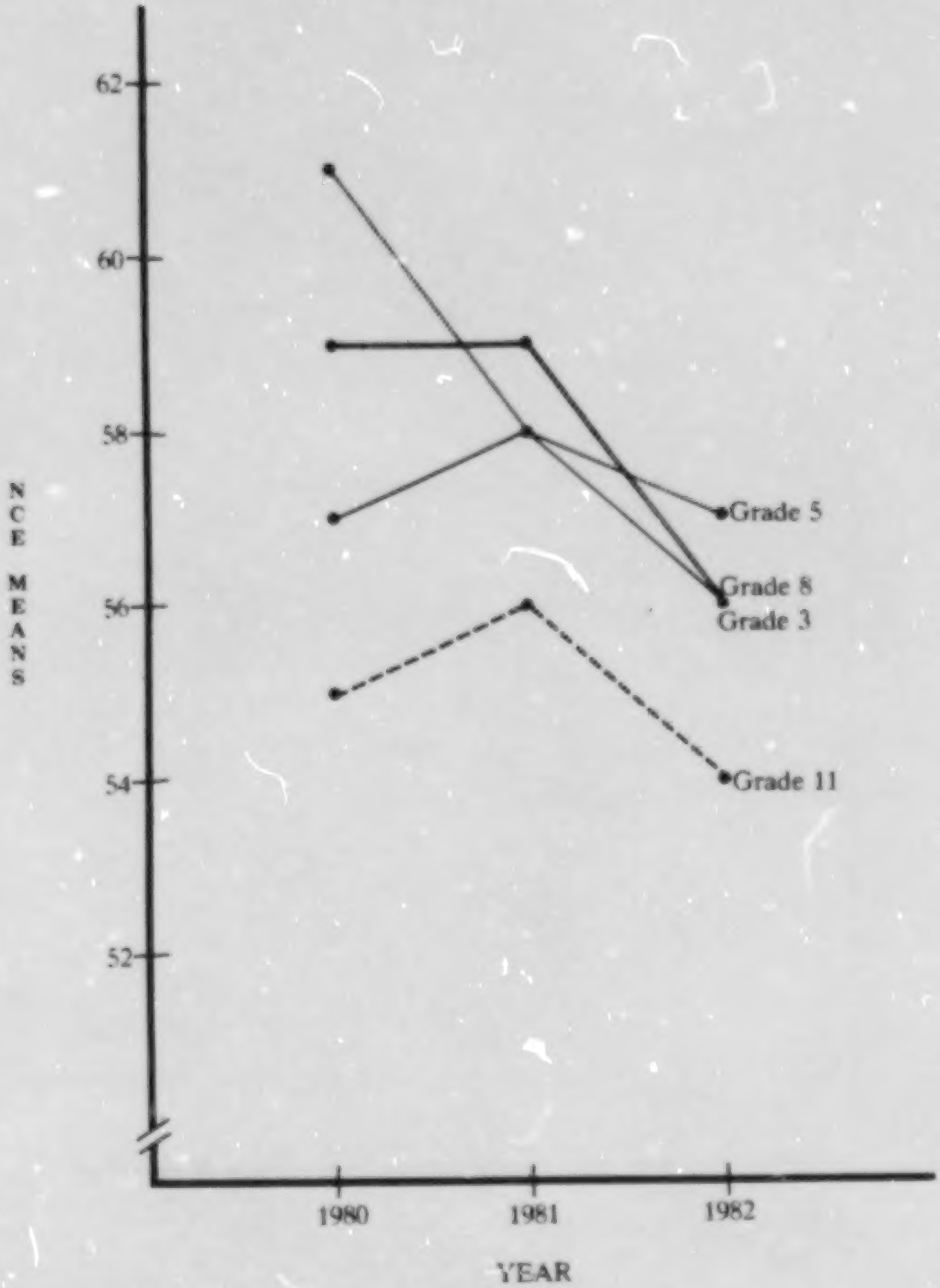

FIGURE 1.7
HISTORICAL TRENDS FOR THE
CALIFORNIA ACHIEVEMENT TESTS
TOTAL BATTERY, 1980-1982, WHITE STUDENTS

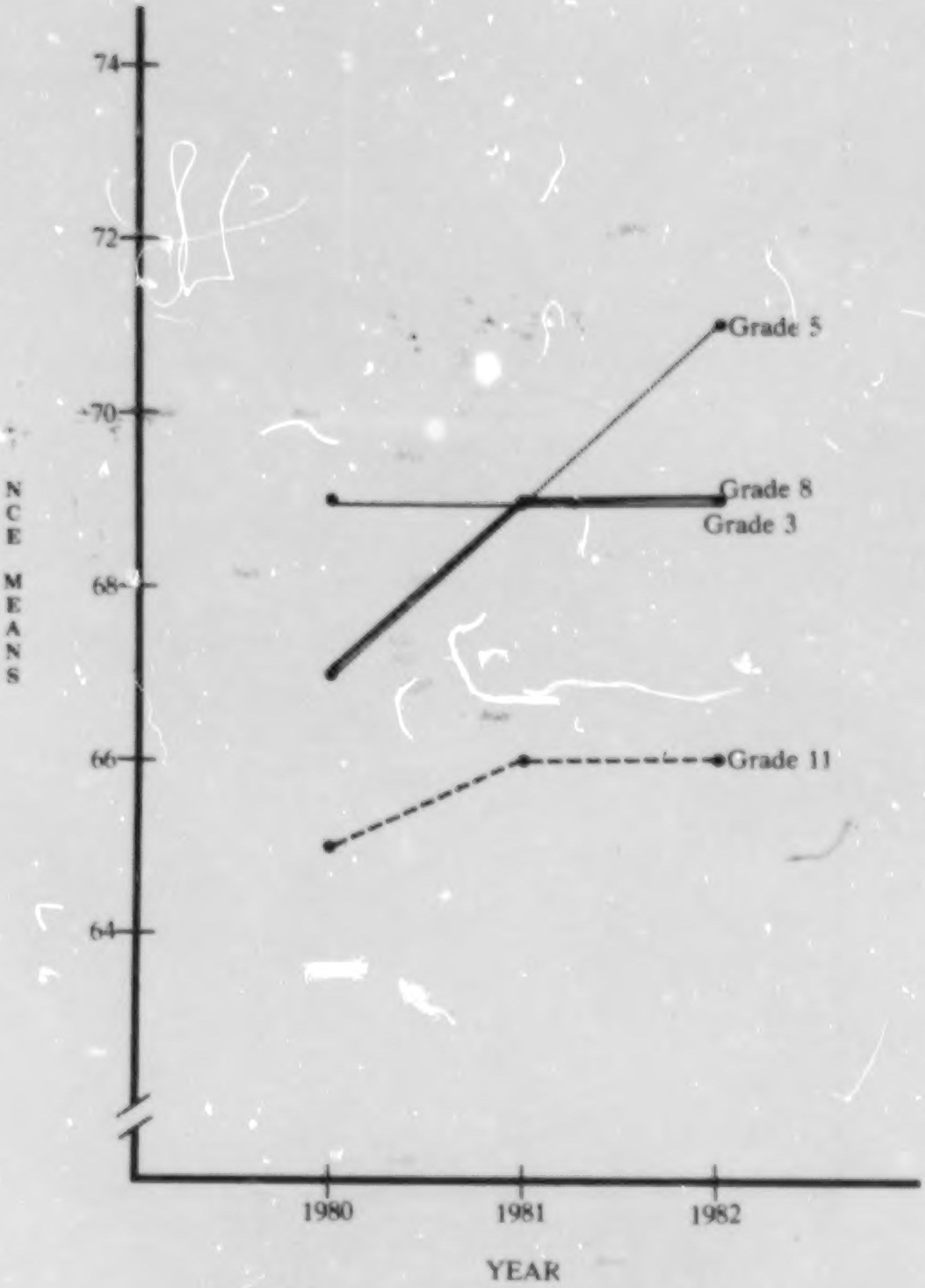

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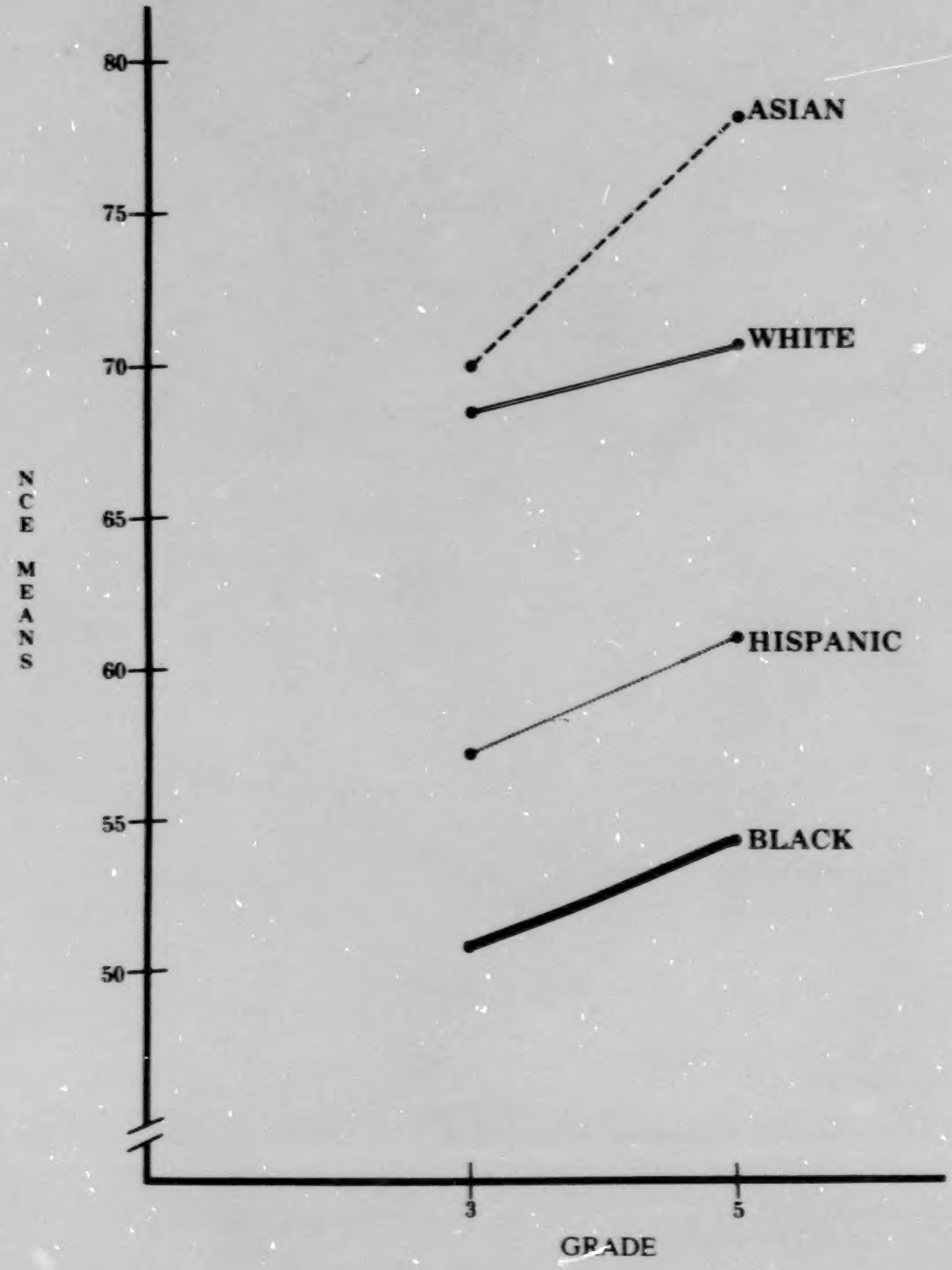
FIGURE 1.8
LONGITUDINAL RESULTS ON THE CALIFORNIA ACHIEVEMENT TESTS FOR STUDENTS TESTED IN GRADE 3 (1980) AND GRADE 5 (1982) BY RACE



Asian students averaged one NCE point higher than white students on the Total Battery in Grades 5, 8, and, 11, and four points higher in Grade 3. The major reason that Asian students tended to score higher on the Total Battery was the fact that they scored six to eight points higher on the Math Total. White students scored higher on the Reading and Language Totals in all grades except for the third grade Language where the two groups were even.

While the mean scores for the various groups indicate substantial differences it should be noted that within each group there are students achieving at all levels. For example, Black students, the group with the lowest mean scores, had five percent scoring at stanine 9. The national norm group had only four at this score. Table A10 shows the distribution of stanine scores by race. The results by race for each subtest can be found in Tables A4 to A7 in Appendix A.

Majority/Minority score differences in MCPS compared to those in the national norm group. The score differences between white and minority groups have been noted each year since 1978. However, because of lack of data before 1980, it was not possible to compare these differences with ones reported elsewhere. This situation has now changed because McGraw-Hill, the publisher of the CAT, has reported data on the performance of "black," "Hispanic," and "other" students in the national norm sample. The third group, "other," combines white, Asian, and American Indian students. These data provide a way to compare performance of various racial/ethnic groups in MCPS with that of students of the same racial/ethnic background in a national group. Additionally, these data provide a benchmark against which to compare the score differences found in MCPS.

The results discussed in this section may be slightly different from other sections because of the "other" group discussed above and because the McGraw-Hill results are reported in raw score terms, not NCEs.[6]

While MCPS black and Hispanic students score substantially below MCPS white students, they score well above their counterparts in the national norm group. In Grades 3, 5, and 8 on the Total Battery, the MCPS minority group students averaged from 16 to 22 NCE points above the members of their racial groups in the national norm sample. The difference for white students cannot be determined exactly, but a very good estimate can be made from looking at the results of the "other" group since the white students made up over 90 percent of that group. The Total Battery differences for "other" students were 16 to 18 NCE points. The results are similar for each major subject area. Summary results are presented in Table A11 in the Appendix.

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[6] To obtain MCPS data that could be compared to the McGraw-Hill raw scores, it was necessary to recompute MCPS means using raw scores. However, the raw scores could not be directly compared because they were from testing at different times of the year. The McGraw-Hill scores were gathered in the spring and, therefore, would be expected to be higher than they would have been in the fall, the time when the MCPS results were gathered. Thus, the mean raw scores had to be converted to NCEs so they could be compared. Converting mean scores computed in another metric, raw scores in this case, to NCEs is a questionable procedure. To take advantage of the equal interval property of NCEs, they should be used for computing the mean. In this analysis the conversion was necessary and, most likely, caused very little distortion to the results.

The fact that the MCPS/national differences were larger for black and Hispanic students than for "other" students means that, when compared to their racial/ethnic counterparts in the national norm group, MCPS minority students perform slightly better than MCPS white students. Another way to look at these results is that the score differences between black and white and Hispanic and white students are smaller in MCPS than they are nationally. The MCPS/national differences on the Total Battery are shown in Figure 1.9.

Cautions to be observed when reviewing results for Asian and Hispanic students. The results for Asian and Hispanic students are not as representative of the skills of these groups as are the results for white and black students since many Asian and Hispanic students are exempted from testing because they cannot read English well enough to obtain valid results on the test. Additionally, some members of these groups who are able to take the test probably do not know English well enough to perform up to their full capabilities. The extent of the exemptions can be seen in Table A12 which shows the percentage of students in each racial/ethnic group who were tested in the fall of 1980, 1981, and 1982. In 1982 about 80 percent of the enrolled Hispanic students and 85 percent of the enrolled Asian students were tested. These figures compare to 95 for white students and 93 for black students.

Data for Males and Females

Another part of the effort to monitor educational equity in MCPS has been to analyze test results for males and females. The results from this analysis are highlighted by the following:

- Females and males had slight score increases from 1980 to 1982.
- Females scored slightly higher than males on the Total Battery in all grades tested.
- Females scored higher in all grades in language and reading skills.

The scores on the Total Battery have increased from 1980 to 1982 for both males and females in all grades tested. The one exception is in Grade 11, where the average scores for males have remained the same for all three years. All these scores have remained slightly higher for females across the years. Figure 1.10 illustrates this trend.

The 1982 score differences on Total Battery between males and females ranged from two (Grades 3 and 5) to four NCE points (Grade 11).

The largest and most consistent differences between the sexes were found in the language skills where females averaged four to seven points higher. The two groups scored virtually the same in math across the grades. This male/female comparison is illustrated in Figure 1.11. Detailed results by sex are presented in Tables A13 and A14 in the Appendix.

FIGURE 1.9
CALIFORNIA ACHIEVEMENT TESTS
COMPARISON OF BLACK, HISPANIC,
AND "OTHER STUDENTS" WITH
NATIONAL NORM GROUP
FALL 1982

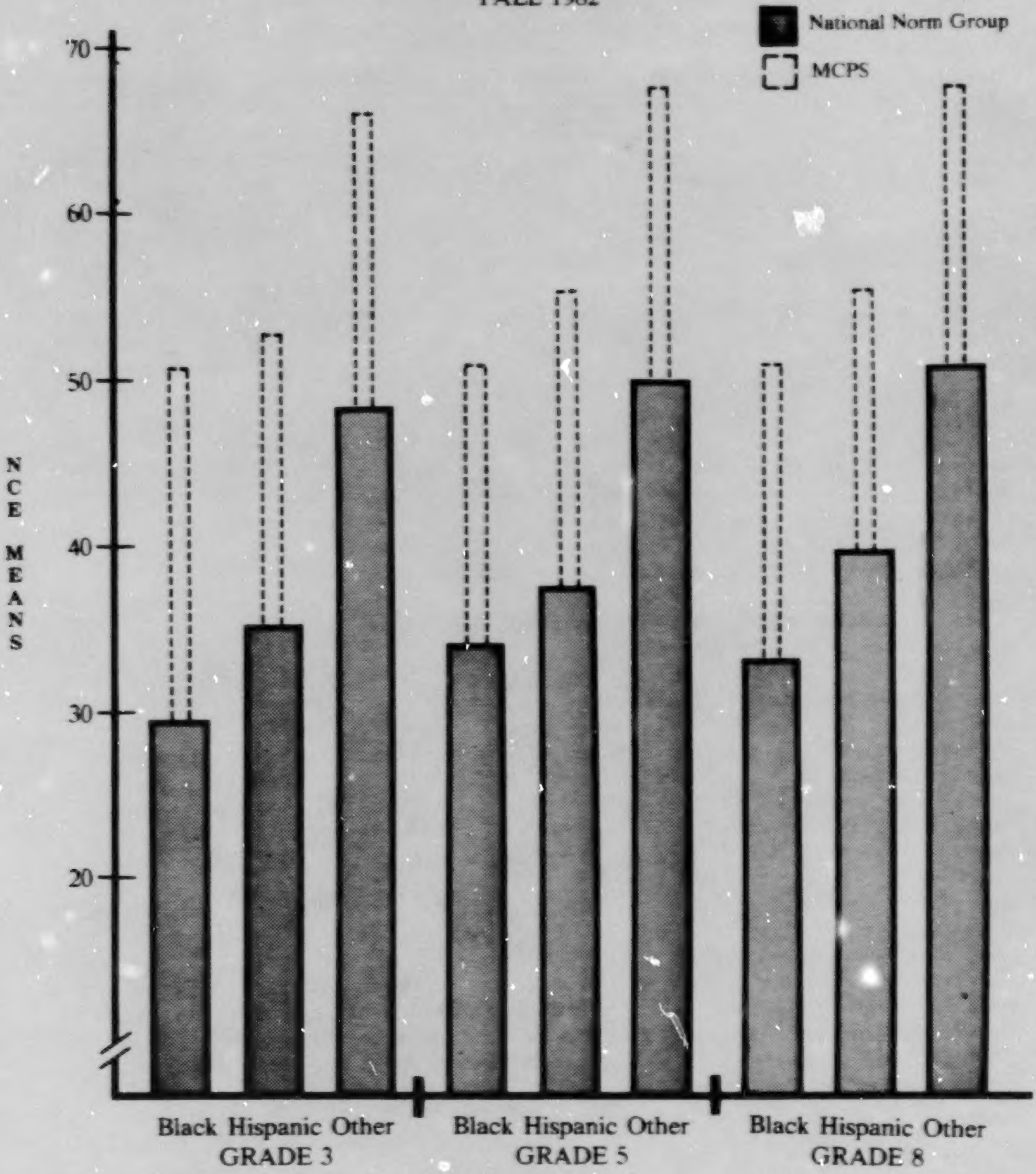


FIGURE 1.10
TRENDS FOR THE CALIFORNIA ACHIEVEMENT TESTS TOTAL BATTERY, 1980-1982, MALES AND FEMALES

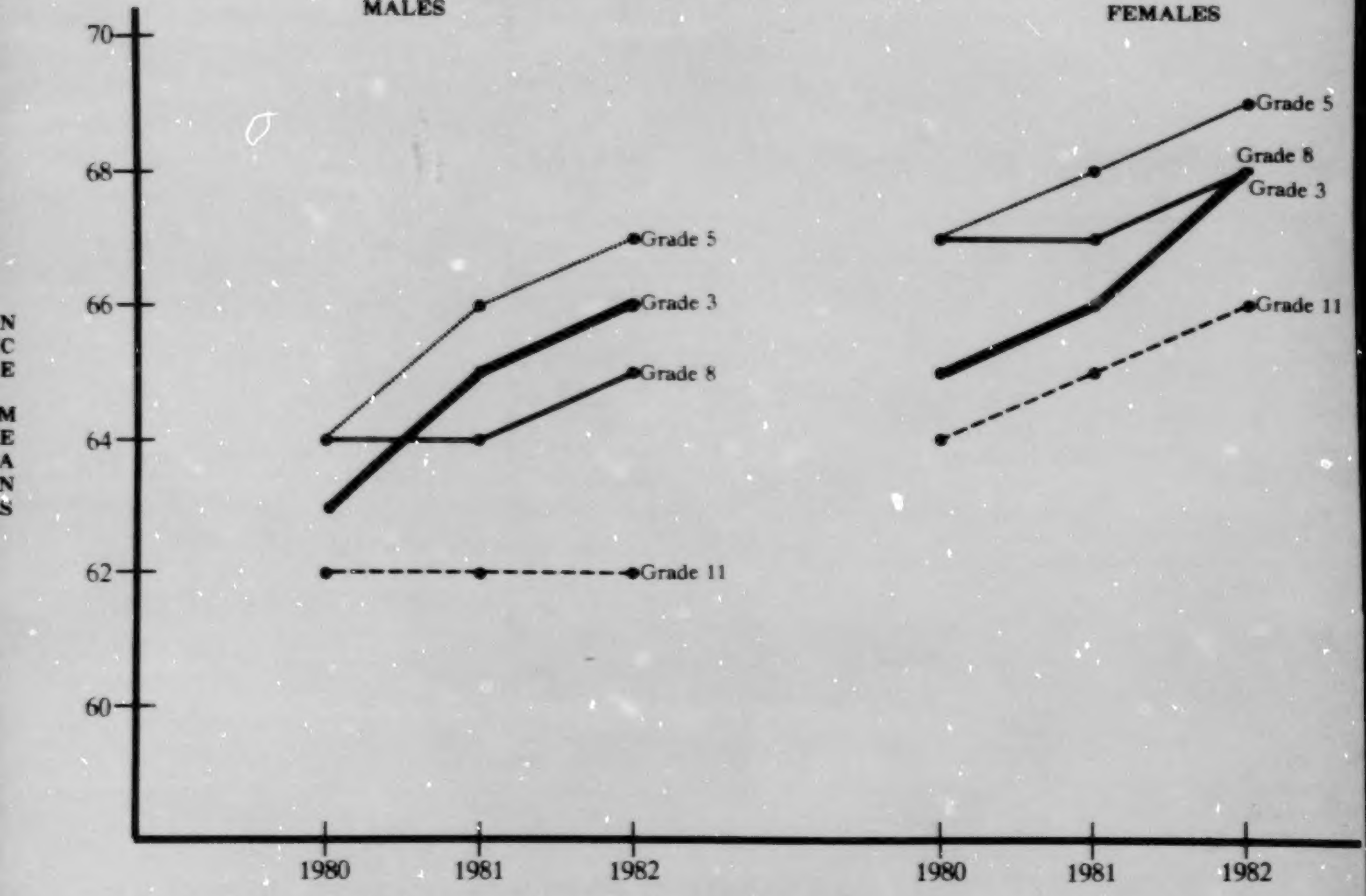
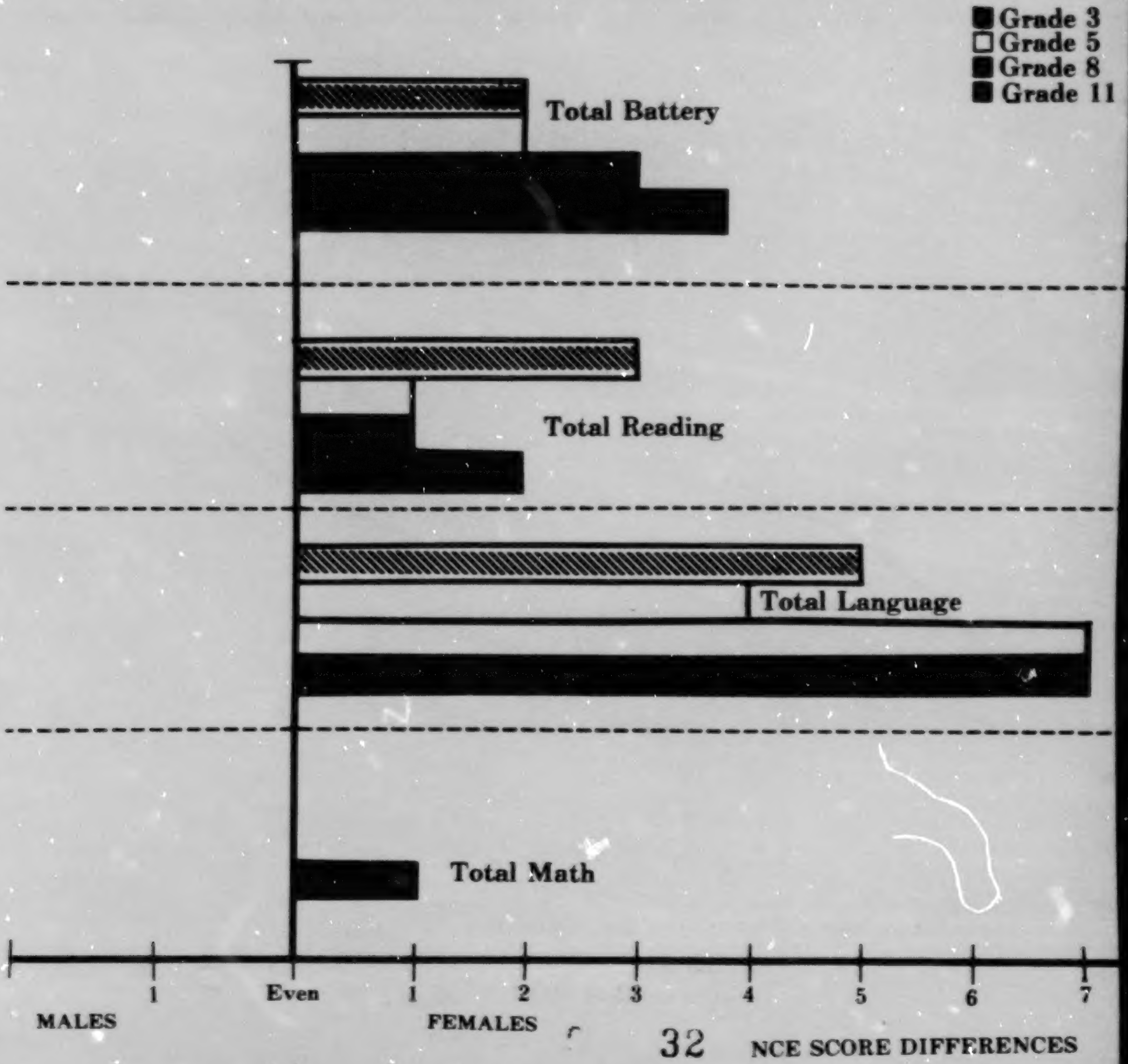


FIGURE 1.11
CALIFORNIA ACHIEVEMENT TESTS, NCE SCORE DIFFERENCES
FOR MCPS MALES AND FEMALES, FALL 1982



Average Subtest and Total Scores

One way to get a brief summary of the overall level of test performance in a school is to look at the average scores for that school. This will not tell you how all the students in the school performed but will provide an indication as to the general level (i.e., high, average, low) of performance. Additional information about the distribution of scores is presented in the next section.

The results reported here are for all subtests, subject area totals, and the Total Battery. Three scores are reported, the Normal Curve Equivalent (NCE) mean, the Scale Score (SS) mean and the Percentile Rank (PR) of the Scale Score mean. The schools are listed in alphabetical order by grade. The first page for each grade follows:

Grade 3 -- Page 24

Grade 5 -- Page 30

Grade 8 -- Page 36

Grade 11 -- Page 38

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TABLE 1

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 THIRD GRADE RESULTS

SCHOOL	SCHOOL #	# FOR BATTERY	TOTAL BATTERY NCE MEAN	TOTAL BATTERY SS MEAN	TOTAL BATTERY PER RANK	PHONIC ANALYSIS NCE MEAN	PHONIC ANALYSIS SS MEAN	PHONIC ANALYSIS PER RANK	STRUCTURAL ANALYSIS NCE MEAN	STRUCTURAL ANALYSIS SS MEAN	STRUCTURAL ANALYSIS PER RANK	READING VOCABULARY NCE MEAN	READING VOCABULARY SS MEAN	READING VOCABULARY PER RANK	READING COMPREHENSION NCE MEAN	READING COMPREHENSION SS MEAN	READING COMPREHENSION PER RANK	TOTAL READING NCE MEAN	TOTAL READING SS MEAN	TOTAL READING PER RANK
ASHBURTON	425	39	66	406	81	57	401	63	63	416	74	64	424	75	66	445	78	64	414	74
BANNOCKBURN	420	45	74	422	89	64	422	75	69	433	83	70	440	84	70	454	82	73	439	86
BARNSLEY	505	56	73	418	87	60	412	70	68	430	82	69	435	81	69	451	81	69	428	82
BEALL	207	84	68	409	81	56	407	67	61	409	70	58	408	65	61	431	70	61	410	72
BELLS MILL	607	36	83	442	96	67	430	79	77	455	91	74	449	88	69	453	82	77	450	90
BELMONT	513	44	79	433	93	66	427	76	73	444	87	65	425	76	67	445	79	71	435	85
BEL PRE	760	44	69	413	84	58	404	65	67	428	81	63	421	73	62	434	72	65	418	77
BETHESDA	401	58	63	400	75	55	396	61	62	412	72	62	419	72	61	430	69	61	407	70
BEVERLY FARMS	226	60	71	415	85	59	407	67	65	421	77	67	432	80	67	448	79	67	424	80
BRADLEY HILLS	410	46	73	418	87	59	407	67	66	424	79	68	433	80	69	451	81	67	424	80
BROAD ACRES	304	34	46	367	42	42	360	35	45	367	42	45	376	40	46	389	42	44	361	38
BROOKHAVEN	807	34	72	416	87	60	412	70	67	425	79	66	428	78	62	433	71	66	421	76
BROWN STATION	559	83	63	399	74	57	404	65	61	410	71	63	421	73	63	436	73	63	412	73
BURNING TREE	414	43	86	451	97	69	436	83	77	455	91	75	450	88	72	459	85	79	456	92
BURTONSVILLE	302	17	80	432	93	66	429	79	70	435	84	67	431	79	69	453	82	73	439	86
CANDLEWOOD	508	47	70	416	86	63	419	74	63	416	74	66	430	79	64	440	75	67	423	79
CANNON ROAD	310	48	75	423	89	65	426	77	67	423	81	66	430	79	67	448	79	72	436	85
CARDEROCK SP.	604	25	77	425	90	69	437	83	71	439	85	73	448	87	73	463	86	77	451	90
CASHELL	511	51	80	434	94	67	431	80	73	442	87	67	431	79	69	452	81	73	440	87
CEDAR GROVE	703	39	63	402	76	52	383	54	61	410	71	61	417	71	60	429	69	60	404	68
CHEVY CHASE	403	70	68	411	83	56	406	66	63	416	74	64	423	75	65	442	76	66	421	76
CLARKSBURG	101	45	56	390	66	53	392	57	59	404	67	54	400	59	58	423	65	57	397	63
CLOVERLY	308	48	63	399	74	60	412	70	62	413	73	64	423	75	60	429	69	63	413	74
COLD SPRING	238	47	76	426	91	63	419	74	70	434	83	69	435	81	67	447	79	69	430	83
COLLEGE GARDEN	229	49	71	415	85	61	414	71	64	418	76	65	427	77	67	447	79	67	425	80
CONNECTICUT PK.	779	28	61	396	71	57	402	64	65	420	77	59	412	67	59	425	66	60	405	69
CRESTHAVEN	808	40	72	422	89	64	421	75	70	434	83	66	430	79	63	436	73	66	428	82
DAMASCUS ES	702	56	67	408	81	61	413	70	64	418	76	59	411	67	63	430	73	63	413	74
DARNESTOWN	351	50	67	407	80	59	406	67	67	426	80	63	421	73	65	441	76	65	419	77
DIAMOND	570	77	66	407	80	59	403	67	62	414	73	63	421	73	64	438	74	64	416	75
DUFIEF	241	70	76	425	90	60	410	69	71	439	85	69	437	82	67	445	76	69	429	82
E. SILVER SPRING	756	36	44	363	35	42	361	36	46	370	44	43	373	36	47	395	46	44	363	35
FAIRLAND	303	66	68	410	82	56	400	62	66	429	81	64	423	75	63	437	73	63	415	75
FALLSMEAD	233	41	79	433	93	65	426	77	69	433	83	69	436	82	71	457	84	72	437	86
FARMLAND	219	67	77	428	91	60	416	69	64	419	76	66	426	78	66	445	78	67	423	79
FIELDS ROAD	566	50	53	380	55	53	391	56	56	395	62	54	399	58	57	421	64	55	392	60
FLOWER VALLEY	506	46	76	429	92	63	421	75	70	435	84	72	444	86	68	450	80	72	436	86
FOREST KNOLLS	603	30	61	396	71	51	386	53	51	383	53	55	401	59	59	426	67	55	393	60
FOX CHAPEL	106	61	66	406	79	55	396	60	64	419	76	61	416	70	64	433	74	62	409	71
GAITHERSBURG ES	553	62	61	395	71	57	405	64	61	409	70	55	409	65	61	431	70	61	406	71
GALWAY	313	37	69	413	84	61	413	70	64	417	75	61	418	71	60	429	69	64	415	75
GARRETT PARK	204	41	63	399	74	50	382	50	55	393	60	56	408	65	61	431	70	56	395	62
GEORGETOWN HILL	221	36	76	430	92	66	433	81	77	455	91	73	446	88	71	455	83	77	450	90
GEORGIAN FOREST	786	32	66	406	79	55	396	60	70	435	84	56	405	62	61	430	69	62	409	71
GERMANTOWN	102	71	74	419	87	59	409	68	69	433	83	66	428	78	64	439	75	66	426	78
GLEN HAVEN	767	40	51	376	51	51	385	52	49	370	48	50	390	51	56	417	61	51	382	53
GLENALLAN	817	49	63	400	75	55	396	61	62	413	73	57	406	63	60	429	69	60	404	68

TABLE 1 (continued)

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 THIRD GRADE RESULTS

SCHOOL	SPELLING NCE MEAN	SPELLING SS MEAN	SPELLING PER RANK	LANGUAGE MECHANICS NCE MEAN	LANGUAGE MECHANICS SS MEAN	LANGUAGE MECHANICS PER RANK	LANGUAGE EXPRESSION NCE MEAN	LANGUAGE EXPRESSION SS MEAN	LANGUAGE EXPRESSION PER RANK	TOTAL LANGUAGE NCE MEAN	TOTAL LANGUAGE SS MEAN	TOTAL LANGUAGE PER RANK	MATH COMPUTATION NCE MEAN	MATH COMPUTATION SS MEAN	MATH COMPUTATION PER RANK	MATH CONC & APP NCE MEAN	MATH CONC & APP SS MEAN	MATH CONC & APP PER RANK	TOTAL MATH NCE MEAN	TOTAL MATH SS MEAN	TOTAL MATH PER RANK
ASHBURTON	60	456	68	67	466	79	63	469	75	67	471	81	69	374	84	65	421	77	69	399	82
BANNOCKBURN	61	461	71	77	511	90	70	467	83	76	497	90	72	378	86	71	433	85	73	405	86
BARNSLEY	67	460	79	74	506	88	69	466	82	74	494	89	70	373	83	71	435	86	72	404	86
BEALL	62	465	73	65	482	76	63	469	75	66	468	80	73	379	87	65	422	76	70	401	84
BELLS MILL	76	512	90	82	526	94	76	504	89	83	520	95	84	402	96	74	442	89	82	422	95
BELMONT	71	494	84	86	536	96	71	490	84	82	517	94	76	385	90	78	450	92	78	416	92
BEL PRE	64	469	75	73	502	87	65	474	77	71	484	86	68	370	81	68	428	82	70	399	82
BETHESDA	57	447	64	67	487	79	64	470	75	67	470	81	58	353	67	63	417	74	63	388	73
BEVERLY FARMS	64	472	76	69	492	82	68	482	81	71	480	85	70	375	84	68	427	81	71	402	84
BRADLEY HILLS	62	462	71	78	514	91	71	490	84	77	503	92	71	377	86	69	424	82	72	403	85
BROAD ACRES	44	402	39	52	449	54	42	410	36	46	411	43	53	342	57	48	385	46	51	368	52
BROOKHAVEN	59	452	66	77	511	90	67	479	79	74	494	89	77	388	91	67	426	80	74	407	88
BROWN STATION	60	455	68	65	483	77	62	464	72	65	465	78	54	345	60	64	419	75	61	385	70
BURNING TREE	77	515	91	82	526	94	79	512	91	85	526	96	84	404	97	83	461	94	85	430	97
BURTONSVILLE	72	497	85	86	534	96	73	497	86	84	520	95	75	383	89	73	439	87	76	410	89
CANDLEWOOD	64	470	75	66	488	80	64	469	75	67	473	82	70	376	85	68	426	82	70	403	85
CANNON ROAD	70	489	83	75	506	89	66	478	79	73	492	89	71	375	84	68	428	82	71	402	84
CARDEROCK SP.	56	445	62	79	516	92	71	489	83	76	501	91	72	377	86	73	439	87	74	407	88
CASHELL	66	463	80	87	537	96	72	493	85	83	520	95	78	391	93	73	439	87	76	415	92
CEDAR GROVE	58	450	65	63	477	73	61	462	71	62	456	74	63	362	75	63	419	75	64	393	77
CHEVY CHASE	60	456	69	65	482	76	66	462	81	66	475	83	66	368	79	65	422	76	67	396	80
CLARKSBURG	54	437	58	70	495	83	58	454	66	66	467	79	53	343	58	58	406	64	57	376	63
CLOVERLY	66	478	76	63	476	73	66	477	76	65	465	78	57	348	62	62	415	72	60	363	68
COLD SPRING	65	475	77	78	515	91	63	466	73	73	487	87	78	390	92	72	437	87	77	414	92
COLLEGE GARDEN	65	473	76	72	500	86	64	471	76	70	478	84	72	377	86	68	429	82	72	404	86
CONNECTICUT PK.	62	465	73	74	504	87	57	451	64	67	470	81	59	353	67	59	407	65	59	382	67
CRESTHAVEN	65	471	75	66	486	80	65	472	76	66	475	83	75	387	91	70	434	85	74	411	90
DAMASCUS ES	61	461	71	72	500	86	62	466	73	68	475	83	67	371	82	63	418	75	66	396	80
DARNESTOWN	60	458	69	62	475	72	59	456	67	62	456	73	70	374	84	62	416	73	68	397	81
DIAMOND	59	453	67	70	495	83	61	463	71	66	473	82	67	368	79	64	419	75	66	394	76
DUFIEF	65	474	77	76	515	91	71	491	84	76	505	92	72	379	87	76	444	89	76	410	89
E. SILVER SPRING	43	401	38	45	431	40	43	411	36	43	402	37	49	335	50	46	379	41	47	361	44
FAIRLAND	61	460	70	65	482	76	62	466	73	65	465	76	72	379	87	65	416	75	69	400	83
FALLSMEAD	70	489	83	73	503	87	73	495	86	76	497	90	76	393	94	75	443	89	79	419	94
FARMLAND	60	458	69	79	517	92	71	490	84	76	504	92	80	396	95	72	437	87	79	416	92
FIELDS ROAD	59	453	67	58	463	64	55	446	57	56	437	60	50	336	51	52	392	52	51	366	52
FLOWER VALLEY	70	490	83	81	521	93	75	503	88	82	515	94	78	390	92	70	433	85	76	412	91
FOREST KNOLLS	55	442	61	64	480	75	60	460	70	63	459	75	64	361	74	62	416	73	64	390	75
FOX CHAPEL	61	461	71	70	493	82	61	463	71	67	471	81	66	371	82	61	414	71	66	394	76
GAITHERSBURG ES	59	453	67	61	472	70	56	447	62	59	446	66	60	356	70	62	414	71	62	386	71
GALWAY	67	461	80	74	505	88	62	464	72	70	479	85	71	376	85	66	423	78	70	401	84
GARRETT PARK	56	444	62	56	459	61	63	469	75	60	452	71	72	376	85	63	417	74	66	398	81
GEORGETOWN HILL	63	466	73	72	499	85	74	499	87	75	496	90	79	395	94	71	436	86	77	416	92
GEORGIAN FOREST	61	456	69	66	484	78	59	456	67	63	460	75	66	367	79	66	425	80	68	397	81
GERMANTOWN	66	482	80	80	521	93	70	487	83	76	504	92	73	378	88	69	427	82	72	404	86
GLEN HAVEN	57	447	64	45	430	40	52	437	55	49	416	47	51	338	53	52	392	52	51	369	53
GLENALLAN	55	443	61	62	475	72	55	446	61	59	448	66	65	365	77	63	416	73	65	392	77

TABLE 1 (continued)

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 THIRD GRADE RESULTS

SCHOOL	SCHOOL #	# FOR BATTERY	TOTAL BATTERY NCE MEAN	TOTAL BATTERY SS MEAN	TOTAL BATTERY PER RANK	PHONIC ANALYSIS NCE MEAN	PHONIC ANALYSIS SS MEAN	PHONIC ANALYSIS PER RANK	STRUCTURAL ANALYSIS NCE MEAN	STRUCTURAL ANALYSIS SS MEAN	STRUCTURAL ANALYSIS PER RANK	READING VOCABULARY NCE MEAN	READING VOCABULARY SS MEAN	READING VOCABULARY PER RANK	READING COMPREHENSION NCE MEAN	READING COMPREHENSION SS MEAN	READING COMPREHENSION PER RANK	TOTAL READING NCE MEAN	TOTAL READING SS MEAN	TOTAL READING PER RANK
GREENWOOD	512	96	67	407	80	63	420	74	64	419	76	66	430	79	64	438	74	67	424	80
HARMONY HILLS	797	46	57	388	64	52	388	54	57	400	65	52	394	54	55	416	60	54	390	58
HIGHLAND	774	60	46	371	46	49	361	50	49	377	49	46	380	43	50	402	51	49	375	48
HIGHLAND VIEW	784	42	64	400	75	56	401	63	60	406	70	60	413	68	63	430	73	62	410	72
JACKSON ROAD	365	47	71	417	86	56	404	65	65	422	76	65	426	76	64	439	75	65	416	77
KEMP MILL	805	53	67	456	98	65	425	77	71	439	85	63	422	74	64	439	75	70	433	84
KENSINGTON PKWD.	763	36	64	403	77	58	406	66	61	410	71	59	411	67	63	430	73	62	411	72
LAKE NORMANDY	231	30	66	450	97	67	432	80	75	449	89	74	444	88	76	470	89	78	453	91
LAKEWOOD	209	44	76	427	91	64	422	75	74	445	88	72	445	86	69	453	82	73	441	87
LAYTONSVILLE	51	67	66	405	79	59	409	66	60	406	70	62	420	73	63	437	73	64	415	75
LUXMANOR	226	45	75	423	89	59	408	67	66	430	82	67	431	79	69	451	81	66	426	81
MARYVALE	210	28	51	376	51	45	369	41	55	405	68	47	382	45	47	394	45	46	373	46
MEADOW HALL	222	47	61	395	70	53	392	57	60	406	69	60	413	68	60	428	66	60	404	66
MILL CREEK TOWNE	556	86	66	407	80	56	407	67	62	414	73	59	411	67	62	434	72	62	411	72
MONOCACY	652	21	57	388	64	49	379	46	[illegible]	390	56	66	429	78	61	430	69	56	399	65
NEW HAMPSHIRE E.	791	33	54	382	57	43	382	37	63	415	74	47	383	46	53	405	55	50	379	50
OAK VIEW	766	52	59	393	66	52	388	54	57	399	64	56	405	62	57	414	62	57	396	62
OAKLAND TERRACE	769	66	67	410	82	59	407	67	64	417	75	63	420	73	65	440	75	64	416	75
OLNEY	562	52	67	406	79	56	407	67	66	429	81	68	433	80	62	435	72	66	421	76
PAGE	312	61	72	420	88	56	407	67	66	431	82	67	431	79	62	434	72	65	419	77
PINE CREST	761	55	59	392	67	56	399	62	57	401	65	54	399	58	56	416	62	57	397	63
POOLESVILLE ES	153	95	59	393	66	50	384	52	57	399	64	60	414	69	61	432	70	57	396	64
POTOMAC	601	35	74	424	90	64	424	76	69	432	83	67	431	79	69	453	82	72	436	85
RITCHIE PARK	227	74	75	422	89	60	411	69	66	429	81	70	439	83	70	454	82	70	430	83
ROCK CREEK FOR.	173	43	59	391	67	51	367	54	51	382	53	55	401	59	56	422	64	54	391	59
ROCK CREEK VAL.	619	33	70	415	85	55	396	60	66	429	81	62	419	72	60	427	67	61	409	71
ROCKING HORSE RD	765	24	66	393	66	56	400	62	56	396	62	54	399	58	55	415	60	56	395	62
ROCK VIEW	795	56	66	406	79	56	403	62	61	411	72	65	427	77	67	446	78	64	415	75
ROLLING TERRACE	771	51	58	390	66	52	369	55	64	418	76	51	391	52	52	406	55	54	390	55
ROSEMARY HILLS	794	47	61	397	72	54	395	59	54	392	59	59	412	67	62	434	72	60	405	69
ROSEMONT	555	32	61	395	70	47	375	45	65	421	77	57	406	63	59	426	67	56	395	62
SEVEN LOCKS	603	20	77	429	92	62	416	72	71	439	85	68	434	81	71	456	83	71	433	84
SHERWOOD ES	501	49	64	410	82	57	403	64	63	416	74	67	431	79	64	435	74	64	417	76
SOMERSET	405	30	84	446	97	66	433	81	75	445	88	73	447	87	73	463	86	76	456	92
SOUTH LAKE	564	72	62	397	72	54	394	56	50	380	51	61	417	71	63	437	73	57	396	64
STEDWICK	565	92	73	422	89	60	410	69	66	429	81	66	429	78	65	442	76	67	424	80
STONEGATE	316	41	69	410	82	62	416	72	63	417	75	64	424	75	63	437	73	65	418	77
STRATHMORE	822	35	56	388	64	56	400	62	61	409	70	51	392	53	56	417	61	57	396	64
SUMMIT HALL	565	47	66	410	82	57	403	64	66	431	82	62	418	71	64	440	75	64	417	76
TAKOMA PARK ES	734	44	52	379	54	47	374	45	50	380	51	50	390	51	53	410	56	50	374	50
TRAVILAH	216	53	59	392	67	56	400	62	66	423	76	62	419	72	58	425	65	62	410	72
TWINBROOK	206	101	52	378	53	47	374	45	54	391	59	52	395	55	52	407	54	51	380	51
VIERS MILL	772	46	51	376	51	50	382	50	53	388	57	49	388	49	53	409	55	51	381	52
WASHINGTON GROVE	552	72	56	385	61	49	382	50	50	379	50	56	405	62	56	418	62	53	387	56
WATKINS MILL	561	57	72	416	86	57	402	64	63	417	75	66	415	69	63	436	73	62	411	72
WAYSIDE	235	52	83	439	95	70	430	83	76	433	90	75	451	88	72	454	85	79	455	91
WELLER ROAD	777	64	55	385	61	55	390	56	55	393	60	51	393	53	53	411	57	53	387	56

TABLE 1 (continued)

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 THIRD GRADE RESULTS

SCHOOL	SPELLING NCE MEAN	SPELLING SS MEAN	SPELLING PER RANK	LANGUAGE MECHANICS NCE MEAN	LANGUAGE MECHANICS SS MEAN	LANGUAGE MECHANICS PER RANK	LANGUAGE EXPRESSION NCE MEAN	LANGUAGE EXPRESSION SS MEAN	LANGUAGE EXPRESSION PER RANK	TOTAL LANGUAGE NCE MEAN	TOTAL LANGUAGE SS MEAN	TOTAL LANGUAGE PER RANK	MATH COMPUTATION NCE MEAN	MATH COMPUTATION SS MEAN	MATH COMPUTATION PER RANK	MATH CONC & APP NCE MEAN	MATH CONC & APP SS MEAN	MATH CONC & APP PER RANK	TOTAL MATH NCE MEAN	TOTAL MATH SS MEAN	TOTAL MATH PER RANK
GREENWOOD	63	467	74	70	494	83	66	476	78	70	479	85	58	351	65	67	425	80	64	389	74
HARMONY HILLS	57	448	64	68	490	81	57	451	64	64	460	75	57	350	64	54	396	57	56	377	62
HIGHLAND	48	417	47	53	451	55	52	438	55	52	428	54	47	332	47	47	382	43	47	362	45
HIGHLAND VIEW	57	445	62	67	486	79	57	452	65	63	460	75	63	360	73	67	426	80	66	393	77
JACKSON ROAD	65	474	77	70	495	83	66	477	78	70	463	86	74	382	89	68	430	83	73	406	87
KEMP MILL	79	522	92	83	528	95	76	504	89	83	522	95	84	408	97	78	451	92	83	429	97
KENSINGTON PKWD.	56	449	65	64	479	75	62	464	72	64	461	76	62	359	72	66	423	78	65	392	77
LAKE NORMANDY	73	501	87	80	519	92	82	522	94	88	526	96	85	408	97	81	457	93	86	431	97
LAKEWOOD	72	496	85	74	506	88	67	479	79	73	490	88	76	366	91	70	433	85	74	409	89
LAYTONSVILLE	62	463	72	74	504	87	62	465	72	70	481	85	60	355	69	64	421	77	63	389	74
LUXMANOR	61	461	71	72	501	86	66	475	77	71	464	86	79	392	93	70	433	85	77	412	91
MARYVALE	40	390	32	53	451	55	52	436	54	52	430	55	52	341	56	53	396	55	54	373	58
MEADOW HALL	58	452	66	59	467	67	59	456	66	60	450	64	57	351	65	61	414	71	60	386	71
MILL CREEK TOWNE	55	442	61	70	495	83	65	475	77	70	460	85	72	377	86	62	414	71	66	397	81
MONOCACY	55	440	60	53	453	57	54	442	58	53	431	56	52	342	57	60	411	69	56	381	66
NEW HAMPSHIRE E.	49	418	47	60	469	68	56	448	62	56	446	67	61	357	70	54	397	56	56	380	65
OAK VIEW	50	423	50	58	465	65	56	454	66	59	447	67	62	359	72	61	412	70	61	387	72
OAKLAND TERRACE	57	446	63	71	497	84	67	479	79	71	464	86	65	367	79	65	422	78	67	396	80
OLNEY	60	456	69	71	496	84	67	479	79	70	461	85	64	363	75	62	414	71	64	390	75
PAGE	65	472	76	73	505	87	69	484	81	73	492	89	73	385	90	67	426	80	73	406	87
PINE CREST	58	451	66	61	472	70	55	447	62	59	449	69	58	353	67	58	406	64	59	382	67
POOLESVILLE ES	55	441	60	68	490	81	63	467	73	67	471	81	52	341	56	61	413	71	56	380	65
POTOMAC	67	460	79	83	528	95	66	481	80	76	505	92	71	378	86	70	434	85	72	406	87
RITCHIE PARK	64	471	75	79	517	92	68	481	80	76	494	91	73	380	87	70	433	85	74	407	88
ROCK CREEK FOR.	54	436	59	57	462	63	56	446	62	57	442	64	63	360	73	60	412	70	62	387	72
ROCK CREEK VAL.	57	447	64	79	518	92	59	457	65	71	463	86	76	369	92	70	433	85	76	411	90
ROCKING HORSE RD	57	447	64	63	477	73	53	438	55	58	443	65	66	366	78	57	404	62	63	386	73
ROCK VIEW	63	466	74	68	489	80	66	475	77	66	474	82	62	360	73	64	419	75	65	392	77
ROLLING TERRACE	52	431	55	66	484	78	59	456	66	64	462	77	57	350	64	56	407	65	59	381	66
ROSEMARY HILLS	60	457	69	57	461	63	56	446	62	57	442	64	56	355	69	64	418	75	62	384	74
ROSEMONT	57	446	63	72	500	86	61	464	72	69	477	84	60	356	70	57	404	62	59	382	67
SEVEN LOCKS	64	470	75	77	512	90	77	506	89	81	510	93	73	383	89	75	441	88	75	413	91
SHERWOOD ES	63	466	74	70	494	83	65	472	76	69	477	84	70	373	83	64	418	75	65	396	80
SOMERSET	71	495	84	75	508	89	75	501	86	78	503	92	83	400	96	85	472	96	86	432	97
SOUTH LAKE	62	462	71	56	459	61	60	460	70	56	445	66	67	367	79	63	417	74	66	393	77
STEDWICK	65	473	76	76	510	90	66	461	80	74	493	89	74	383	89	70	432	84	74	408	88
STONEGATE	60	457	69	64	478	74	70	487	83	66	475	83	71	375	84	64	419	75	68	396	81
STRATHMORE	52	429	54	53	452	56	56	447	62	54	433	58	63	364	76	52	394	53	59	381	66
SUMMIT HALL	56	446	64	77	512	90	66	476	78	73	459	88	76	372	82	63	417	74	67	396	80
TAKOMA PARK ES	49	420	49	53	452	56	49	430	50	52	426	53	52	341	56	54	399	56	54	373	58
TRAVILAH	58	451	66	61	472	70	60	461	70	62	456	73	54	345	60	57	405	63	57	378	63
TWINBROOK	51	426	52	57	461	63	51	433	52	53	432	57	51	339	54	54	396	57	54	373	58
VIERS MILL	51	426	53	59	466	66	49	427	47	54	431	56	52	340	55	50	388	46	51	368	52
WASHINGTON GROVE	57	446	64	58	465	65	59	456	67	59	447	67	53	342	57	54	398	57	55	375	60
WATKINS MILL	58	450	65	74	505	88	66	475	77	72	456	87	75	385	90	68	429	82	74	407	88
WAYSIDE	72	498	86	79	517	92	70	467	83	77	501	91	83	400	96	79	443	89	82	421	94
WELLER ROAD	55	440	60	62	474	72	52	436	54	57	442	64	53	343	58	56	403	62	55	370	61

TABLE 1 (continued)

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 THIRD GRADE RESULTS

SCHOOL	SCHOOL #	# FOR BATTERY	TOTAL BATTERY NCE MEAN	TOTAL BATTERY SS MEAN	TOTAL BATTERY PER RANK	PHONIC ANALYSIS NCE MEAN	PHONIC ANALYSIS SS MEAN	PHONIC ANALYSIS PER RANK	STRUCTURAL ANALYSIS NCE MEAN	STRUCTURAL ANALYSIS SS MEAN	STRUCTURAL ANALYSIS PER RANK	READING VOCABULARY NCE MEAN	READING VOCABULARY SS MEAN	READING VOCABULARY PER RANK	READING COMPREHENSION NCE MEAN	READING COMPREHENSION SS MEAN	READING COMPREHENSION PER RANK	TOTAL READING NCE MEAN	TOTAL READING SS MEAN	TOTAL READING PER RANK
WESTBROOK	466	36	76	427	91	63	420	74	69	433	83	68	435	81	70	453	82	72	438	86
WESTOVER	504	42	66	414	85	55	398	61	62	413	73	57	406	63	62	434	72	63	413	74
WHEATON WOODS	766	50	59	392	67	54	395	59	55	393	60	60	414	69	60	427	67	56	400	65
WHETSTONE	556	61	73	420	86	62	417	73	66	425	79	71	441	84	70	456	83	71	435	85
WOOD ACRES	417	59	79	430	92	63	419	74	68	430	82	73	445	86	69	451	81	71	436	85
WOODFIELD	704	53	73	417	86	60	411	69	66	429	81	66	430	79	65	440	75	67	424	80
WOODLAWN	764	35	62	396	71	55	399	62	61	411	72	58	410	66	64	439	75	62	409	71
WYNGATE	422	61	76	426	91	65	426	77	71	436	85	66	434	81	69	452	81	72	439	86

TABLE 1 (continued)

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 THIRD GRADE RESULTS

SCHOOL	SPELLING NCE MEAN	SPELLING SS MEAN	SPELLING PER RANK	LANGUAGE MECHANICS NCE MEAN	LANGUAGE MECHANICS SS MEAN	LANGUAGE MECHANICS PER RANK	LANGUAGE EXPRESSION NCE MEAN	LANGUAGE EXPRESSION SS MEAN	LANGUAGE EXPRESSION PER RANK	TOTAL LANGUAGE NCE MEAN	TOTAL LANGUAGE SS MEAN	TOTAL LANGUAGE PER RANK	MATH COMPUTATION NCE MEAN	MATH COMPUTATION SS MEAN	MATH COMPUTATION PER RANK	MATH CONC & APP NCE MEAN	MATH CONC & APP SS MEAN	MATH CONC & APP PER RANK	TOTAL MATH NCE MEAN	TOTAL MATH SS MEAN	TOTAL MATH PER RANK
WESTBROOK	67	480	79	77	513	91	69	486	82	76	500	91	70	374	84	76	446	90	75	409	89
WESTOVER	65	474	77	70	495	83	62	465	72	66	476	83	65	367	79	64	420	76	65	396	80
WHEATON WOODS	56	445	62	65	482	76	59	458	68	63	480	75	55	347	61	58	406	64	56	380	65
WHETSTONE	71	493	84	76	509	89	66	476	76	74	491	89	64	364	76	70	433	85	69	399	82
WOOD ACRES	63	486	75	68	490	81	73	498	87	73	488	88	82	396	95	75	444	89	81	419	94
WOODFIELD	61	466	70	77	512	90	66	477	78	74	492	89	78	388	92	64	419	75	73	405	86
WOODLIN	60	458	69	64	479	75	63	468	74	65	465	78	52	341	56	62	416	73	59	381	66
WYNGATE	65	474	77	76	514	91	70	488	83	76	500	91	73	380	87	74	440	88	75	409	89

TABLE 2

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 FIFTH GRADE RESULTS

SCHOOL	SCHOOL #	# FOR BATTERY	TOTAL BATTERY NCE MEAN	TOTAL BATTERY SS MEAN	TOTAL BATTERY PER RANK	READING VOCABULARY NCE MEAN	READING VOCABULARY SS MEAN	READING VOCABULARY PER RANK	READING COMPREHENSION NCE MEAN	READING COMPREHENSION SS MEAN	READING COMPREHENSION PER RANK	TOTAL READING NCE MEAN	TOTAL READING SS MEAN	TOTAL READING PER RANK	SPELLING NCE MEAN	SPELLING SS MEAN	SPELLING PER RANK	LANGUAGE MECHANICS NCE MEAN	LANGUAGE MECHANICS SS MEAN	LANGUAGE MECHANICS PER RANK
ASHBURTON	425	58	61	479	71	59	484	68	59	500	67	59	486	68	52	510	56	57	525	63
BANNOCKBURN	420	45	72	505	86	72	521	86	67	527	80	70	519	85	64	552	76	66	553	78
BARNSLEY	505	75	73	510	89	68	509	81	67	525	79	63	513	82	65	554	77	74	577	88
BEALL	207	91	60	475	68	55	475	62	55	[illegible]	61	55	474	60	51	505	53	61	538	71
BELLS MILL	607	34	67	493	80	59	484	68	63	514	74	61	493	72	68	567	82	74	579	89
BELMONT	513	38	72	504	86	65	501	77	69	531	82	63	510	81	69	571	83	69	561	82
BEL PRE	760	61	72	506	87	63	495	74	66	522	78	65	504	78	63	546	73	74	577	88
BETHESDA	401	51	69	495	81	67	507	80	67	526	80	67	514	83	58	529	65	69	560	82
BEVERLY FARMS	226	41	70	497	82	67	505	79	74	550	88	72	527	87	64	548	74	65	553	77
BRADLEY HILLS	410	37	72	504	86	67	505	79	70	535	83	69	516	84	62	544	73	74	577	88
BROAD ACRES	304	44	53	459	55	46	454	46	48	468	48	48	453	46	55	517	59	56	523	61
BROOKHAVEN	807	60	70	500	84	67	507	80	65	518	76	66	505	80	59	534	68	74	576	88
BROWN STATION	559	99	65	490	78	62	493	73	62	509	72	62	496	74	58	529	65	65	548	76
BURNING TREE	419	82	87	546	97	80	542	92	80	572	94	81	559	94	78	602	92	77	586	91
BURTONSVILLE	302	29	72	507	87	62	494	74	65	516	76	64	502	77	67	562	80	78	589	91
CANDLEWOOD	508	68	67	494	81	64	499	76	63	513	74	64	501	77	61	542	72	68	559	81
CANNON ROAD	310	43	80	533	95	72	519	85	75	553	89	75	535	90	72	581	86	79	590	92
CARDEROCK SP.	604	36	74	507	87	69	512	82	67	526	80	69	514	83	61	541	71	76	580	89
CASHELL	511	75	71	503	85	66	504	79	65	518	76	65	507	80	63	547	74	71	567	85
CEDAR GROVE	703	34	65	489	78	64	496	76	64	514	74	64	501	77	63	549	75	61	538	71
CHEVY CHASE	403	73	73	508	88	70	515	84	68	530	81	70	520	85	62	544	73	70	565	84
CLARKSBURG	101	52	58	470	64	53	482	66	55	489	61	57	477	64	50	499	50	61	539	71
CLOVERLY	308	62	67	496	82	63	495	74	63	514	74	64	500	76	63	548	74	71	565	84
COLD SPRING	238	47	76	514	90	70	515	84	70	535	83	71	521	85	66	559	79	70	563	83
COLLEGE GARDEN	229	68	73	507	87	[illegible]	516	84	69	534	83	71	523	86	61	539	70	71	569	85
CONNECTICUT PK.	779	32	64	485	75	63	496	75	61	506	70	62	494	73	58	529	65	61	539	71
CRESTHAVEN	808	51	68	495	81	66	505	79	65	520	77	65	508	80	66	560	79	64	[illegible]	75
DAMASCUS ES	702	71	69	496	82	67	507	80	65	519	77	66	507	80	59	534	68	69	561	82
DARNESTOWN	351	68	72	503	85	66	503	78	69	534	83	63	514	83	59	534	68	68	558	81
DIAMOND	570	95	68	496	82	67	507	[illegible]	65	520	77	67	510	81	58	529	65	63	542	73
DUFIEF	241	73	73	512	89	66	503	78	67	527	80	68	512	82	65	556	78	73	574	87
FAIRLAND	303	64	64	485	75	65	501	77	63	515	75	65	503	78	56	523	62	62	540	72
FALLSMEAD	233	49	74	510	89	67	507	80	63	514	74	65	505	79	67	560	79	84	606	95
FARMLAND	219	66	80	523	93	68	509	81	68	528	81	63	514	83	72	581	86	82	598	93
FIELDS ROAD	566	48	64	486	76	59	485	68	58	498	66	57	486	68	59	533	67	63	545	74
FLOWER VALLEY	506	59	69	497	82	64	497	75	63	513	74	64	500	76	60	537	69	71	565	84
FOREST KNOLLS	803	39	62	480	72	59	466	69	60	504	69	60	490	70	58	529	65	63	543	73
FOX CHAPEL	106	83	67	495	81	61	489	71	63	516	75	63	498	75	65	553	76	69	561	82
GAITHERSBURG ES	555	65	60	476	69	61	469	71	58	496	65	59	486	63	58	529	65	59	533	68
GALWAY	313	35	72	502	85	65	499	76	67	525	79	67	508	80	60	536	69	69	561	82
GARRETT PARK	204	45	70	501	84	70	516	84	66	522	78	68	511	81	62	544	73	69	559	81
GEORGETOWN HILL	221	52	78	520	92	70	515	84	71	538	84	71	523	86	68	564	81	72	569	85
GEORGIAN FOREST	786	49	67	491	79	61	490	71	64	515	75	63	498	75	58	530	66	64	545	74
GERMANTOWN	102	64	62	479	71	60	487	70	59	501	67	60	488	69	60	535	68	62	541	72
GLEN HAVEN	767	62	56	466	61	56	476	62	58	496	65	57	480	64	55	519	60	56	523	61
GLENALLAN	617	69	70	501	84	61	490	71	65	518	76	64	500	76	66	558	78	77	584	90
GREENWOOD	512	72	74	510	89	68	509	81	71	539	85	71	520	85	69	567	82	77	586	91

TABLE 2 (continued)

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 FIFTH GRADE RESULTS

SCHOOL	LANGUAGE EXPRESSION			TOTAL LANGUAGE			MATH COMPUTATION			MATH CONC & APP			TOTAL MATH			REFERENCE SKILLS		
	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK
ASHBURTON	59	521	69	59	517	66	61	464	70	65	491	77	64	477	75	63	518	73
BANNOCKBURN	72	563	87	72	555	86	67	477	78	72	509	87	71	492	84	73	549	86
BARNSLEY	71	557	85	74	567	90	70	488	84	72	511	88	73	499	88	71	544	85
BEALL	63	534	76	63	530	74	60	460	68	62	484	72	62	472	71	62	517	73
BELLS MILL	66	546	82	73	562	88	65	473	76	61	481	70	63	475	73	66	529	79
BELMONT	73	566	88	73	563	89	63	467	72	72	507	86	68	485	80	75	555	88
BEL PRE	70	555	85	75	565	89	70	488	84	72	507	86	72	496	87	72	548	86
BETHESDA	68	552	83	71	552	85	61	463	70	68	498	81	66	480	77	66	529	79
BEVERLY FARMS	75	572	89	73	557	87	57	453	63	68	496	80	63	473	72	70	539	83
BRADLEY HILLS	69	551	83	73	560	86	66	478	79	73	510	87	71	494	85	70	541	84
BROAD ACRES	53	505	57	55	505	59	60	462	69	54	465	58	57	462	64	56	497	61
BROOKHAVEN	67	545	81	72	557	87	67	477	78	69	500	82	69	488	82	69	536	82
BROWN STATION	66	544	80	67	542	80	64	472	75	63	486	74	65	479	76	64	523	76
BURNING TREE	82	594	94	83	594	95	81	518	95	82	536	96	84	528	97	77	561	90
BURTONSVILLE	70	556	85	76	573	91	69	485	83	72	508	86	72	496	86	69	537	82
CANDLEWOOD	65	542	80	68	540	82	64	471	75	65	490	76	65	483	77	65	526	77
CANNON ROAD	77	580	91	81	590	95	77	509	92	73	514	89	77	513	94	72	547	86
CARDEROCK SP.	76	573	90	79	576	92	63	469	74	78	518	91	72	494	85	70	541	84
CASHELL	70	556	85	75	560	88	70	485	83	68	499	82	70	492	84	69	537	82
CEDAR GROVE	67	547	82	66	537	78	59	460	68	67	495	80	64	479	76	70	542	84
CHEVY CHASE	68	550	83	72	557	87	72	491	86	69	502	83	72	496	86	65	525	77
CLARKSBURG	59	521	69	61	523	70	55	448	59	57	472	64	57	460	62	61	515	72
CLOVERLY	67	546	82	71	554	86	62	467	72	66	496	80	65	481	77	70	540	83
COLD SPRING	74	568	88	75	564	89	74	495	88	75	516	90	76	505	91	70	540	83
COLLEGE GARDEN	70	555	85	73	561	88	68	480	80	74	512	88	72	494	85	70	539	83
CONNECTICUT PK.	59	521	69	61	523	70	67	479	80	64	488	75	67	483	79	64	522	75
CRESTHAVEN	72	562	87	70	550	84	65	474	77	62	484	72	65	479	76	65	526	77
DAMASCUS ES	66	542	80	70	547	83	64	470	74	68	497	81	67	482	78	66	530	79
DARNESTOWN	71	557	85	71	555	86	69	484	82	72	506	86	72	494	85	68	536	82
DIAMOND	63	535	76	65	534	76	68	481	81	68	498	81	69	489	82	71	543	84
DUFIEF	70	557	85	73	566	90	71	495	88	71	508	86	73	503	90	69	538	82
FAIRLAND	67	547	82	66	536	78	59	459	67	61	480	70	61	470	70	66	529	79
FALLSMEAD	76	573	90	83	593	95	65	476	78	73	511	88	71	494	85	68	534	81
FARMLAND	74	567	88	81	584	94	77	505	91	80	527	93	81	516	94	75	555	88
FIELDS ROAD	63	532	75	64	533	76	67	479	80	63	487	75	65	482	78	63	518	73
FLOWER VALLEY	72	564	87	74	563	89	66	477	78	66	494	79	68	485	80	68	535	81
FOREST KNOLLS	59	522	69	62	525	71	60	461	68	62	484	72	62	472	71	62	516	72
FOX CHAPEL	65	540	79	69	547	83	67	479	80	63	487	75	65	482	78	66	529	79
GAITHERSBURG ES	62	529	73	61	523	70	55	449	60	60	477	67	58	464	65	62	516	72
GALWAY	66	543	80	69	546	82	75	498	89	71	504	85	75	500	88	68	534	81
GARRETT PARK	71	556	85	72	556	86	66	475	77	69	501	83	69	488	82	63	519	74
GEORGETOWN HILL	77	577	91	77	572	91	72	492	86	79	528	94	77	510	93	76	559	89
GEORGIAN FOREST	64	538	76	65	537	78	69	485	83	64	490	76	66	486	81	66	529	79
GERMANTOWN	61	528	73	62	527	73	61	463	70	60	479	69	61	470	70	65	527	78
GLEN HAVEN	59	521	69	55	514	65	51	440	53	55	467	60	53	453	57	59	508	66
GLENALLAN	65	541	79	73	560	88	69	486	83	69	501	83	70	491	84	67	533	80
GREENWOOD	80	585	92	82	588	94	63	469	74	72	507	86	69	487	81	73	548	86

TABLE 2 (continued)

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 FIFTH GRADE RESULTS

			TOTAL BATTERY			READING VOCABULARY			READING COMPREHENSION			TOTAL READING			SPELLING			LANGUAGE MECHANICS		
SCHOOL	SCHOOL #	# FOR BATTERY	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK
HARMONY HILLS	797	38	56	465	60	51	463	53	53	481	56	52	464	56	51	505	53	55	522	61
HIGHLAND	774	69	52	456	53	52	465	54	52	478	54	52	463	53	51	502	51	53	514	56
HIGHLAND VIEW	786	64	53	461	57	53	470	58	55	490	61	54	474	60	50	500	50	51	510	53
JACKSON ROAD	305	62	65	496	82	66	505	79	67	528	81	67	515	83	60	537	69	65	548	76
KEMP MILL	805	65	75	514	90	68	508	81	67	526	80	68	514	83	65	556	78	75	577	88
KENSINGTON PKWD.	763	49	63	483	74	61	489	71	63	512	73	62	496	74	57	526	64	60	537	70
LAKE NORMANDY	231	57	75	512	89	71	517	84	70	535	83	71	523	86	68	565	81	72	570	86
LAKEWOOD	209	41	73	509	88	68	508	81	68	529	81	69	514	83	67	561	80	72	570	86
LAYTONSVILLE	91	73	71	502	85	66	504	79	65	520	77	66	508	80	62	545	73	68	559	81
LUXMANOR	220	46	79	525	94	76	531	87	69	533	83	72	525	87	71	577	85	70	564	83
MARYVALE	210	45	53	459	55	52	466	55	48	465	46	49	457	49	48	494	47	57	525	63
MEADOW HALL	212	47	64	484	74	62	492	73	58	498	66	61	489	70	54	514	58	61	539	71
MILL CREEK TOWNE	556	105	59	473	66	56	476	62	58	497	65	57	481	65	57	527	64	59	532	67
MONOCACY	652	32	55	464	59	55	474	61	57	496	65	57	480	64	50	500	50	58	530	66
OAK VIEW	706	35	56	466	61	58	482	66	54	485	58	55	477	62	52	508	56	56	531	66
OAKLAND TERRACE	769	80	62	481	72	64	497	75	58	499	66	61	491	71	58	528	65	62	542	73
OLNEY	502	51	62	481	72	61	489	71	60	503	69	60	499	70	56	520	61	69	562	83
PAGE	312	53	76	516	92	69	511	82	68	530	81	69	517	84	70	574	84	76	562	90
PINE CREST	701	48	59	474	67	59	485	68	57	496	65	58	485	67	57	525	63	59	533	68
PINEY BRANCH	749	132	63	483	74	61	491	72	59	500	67	60	490	70	57	525	63	60	535	69
POOLESVILLE ES	153	72	61	478	70	61	490	71	61	508	71	62	494	73	55	519	60	57	527	64
POTOMAC	601	70	76	522	93	71	517	84	73	547	88	73	530	88	68	566	81	73	573	87
RITCHIE PARK	227	79	75	513	90	71	518	85	69	533	83	71	522	86	69	571	83	76	580	89
ROCK CREEK FOR.	773	35	66	494	81	63	497	75	66	523	76	65	506	79	63	548	74	70	564	83
ROCK CREEK VAL.	819	47	75	512	89	62	493	73	64	516	75	64	500	76	65	553	76	84	608	95
ROCKING HORSE RD	785	37	60	474	67	59	486	69	57	494	64	59	485	67	52	508	54	60	533	68
ROCK VIEW	795	65	61	476	69	64	498	76	62	508	71	63	497	75	56	521	61	61	538	71
ROLLING TERRACE	771	37	49	450	48	39	431	30	46	459	43	42	436	36	54	514	58	55	521	60
ROSEMARY HILLS	794	59	65	490	76	65	501	77	64	516	75	65	504	78	58	530	66	60	536	69
ROSEMONT	555	27	64	485	75	63	496	75	61	508	71	62	496	74	57	524	63	63	544	74
SEVEN LOCKS	603	36	77	517	91	72	519	85	73	545	87	74	532	89	65	556	78	67	553	78
SHERWOOD ES	501	62	64	486	76	64	497	75	60	503	69	62	493	72	61	540	71	66	552	78
SOMERSET	405	41	75	513	90	71	517	84	70	537	84	71	523	86	70	573	84	73	572	86
SOUTH LAKE	564	72	64	487	76	62	494	74	63	513	74	63	496	75	59	532	67	64	548	76
STEDWICK	566	84	74	512	89	69	512	82	67	526	80	69	515	83	65	553	76	74	575	87
STONEGATE	316	45	75	511	89	74	525	37	67	524	79	70	518	84	67	562	80	73	574	87
STRATHMORE	622	30	64	486	76	58	484	66	60	505	70	60	489	70	62	543	72	66	552	78
SUMMIT HALL	563	46	65	488	77	60	488	69	60	505	70	60	489	70	58	529	65	64	545	74
TRAVILAH	216	43	74	510	89	68	511	82	65	519	77	67	506	80	70	571	33	80	594	93
TWINBROOK	206	82	61	477	69	57	479	64	56	493	63	57	480	64	54	515	58	65	550	77
VIERS MILL	772	47	63	482	73	60	486	70	60	504	69	61	490	70	57	525	63	70	564	83
WASHINGTON GROVE	552	61	59	474	67	57	478	64	58	498	66	58	483	66	59	533	67	64	547	75
WATKINS MILL	561	56	68	493	80	67	507	80	63	514	74	63	503	73	64	550	75	70	563	83
WAYSIDE	235	56	78	521	92	71	518	85	70	536	84	71	524	86	69	568	82	75	579	89
WELLER ROAD	777	69	61	480	72	57	479	64	56	495	64	57	483	64	55	520	61	63	545	74
WESTBROOK	408	33	76	511	89	76	533	90	75	550	88	75	539	91	66	558	78	71	565	84
WESTOVER	504	55	75	513	90	69	512	82	67	526	80	68	516	84	69	569	82	73	573	87

TABLE I (continued)

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 FIFTH GRADE RESULTS

SCHOOL	LANGUAGE EXPRESSION NCE MEAN	LANGUAGE EXPRESSION SS MEAN	LANGUAGE EXPRESSION PER RANK	TOTAL LANGUAGE NCE MEAN	TOTAL LANGUAGE SS MEAN	TOTAL LANGUAGE PER RANK	MATH COMPUTATION NCE MEAN	MATH COMPUTATION SS MEAN	MATH COMPUTATION PER RANK	MATH CONC & APP NCE MEAN	MATH CONC & APP SS MEAN	MATH CONC & APP PER RANK	TOTAL MATH NCE MEAN	TOTAL MATH SS MEAN	TOTAL MATH PER RANK	REFERENCE SKILLS NCE MEAN	REFERENCE SKILLS SS MEAN	REFERENCE SKILLS PER RANK
HARMONY HILLS	57	516	65	57	509	61	57	453	63	62	485	73	61	469	69	62	517	73
HIGHLAND	50	496	49	51	494	52	54	445	57	52	458	52	53	451	55	53	489	56
HIGHLAND VIEW	56	513	63	54	503	57	50	438	52	54	466	59	52	451	55	55	496	61
JACKSON ROAD	66	543	80	67	541	80	64	470	74	69	500	82	67	484	79	71	543	84
KEMP MILL	71	560	86	75	566	90	74	494	87	74	516	90	75	505	91	67	530	79
KENSINGTON PKWD.	64	535	76	63	530	74	60	461	68	63	485	73	62	472	71	64	524	76
LAKE NORMANDY	73	564	87	75	564	89	68	483	82	73	513	89	72	500	88	72	547	86
LAKEWOOD	73	563	87	75	566	90	66	475	77	73	511	88	71	493	85	66	529	79
LAYTONSVILLE	71	561	86	72	558	87	65	474	77	72	506	86	70	490	83	71	543	84
LUXMANOR	81	591	93	78	577	92	75	502	90	79	526	93	78	515	94	72	547	86
MARYVALE	52	503	56	56	506	59	55	449	60	53	462	56	55	456	59	52	487	55
MEADOW HALL	60	526	72	62	526	72	68	461	81	64	486	74	67	482	78	64	521	75
MILL CREEK TOWNE	58	520	68	60	520	68	57	453	63	56	475	66	58	463	65	62	519	74
MONOCACY	55	511	62	56	512	63	52	440	53	53	464	57	53	452	56	55	497	61
OAK VIEW	59	521	69	59	519	66	51	440	53	56	475	66	55	456	61	57	502	64
OAKLAND TERRACE	64	536	76	64	535	77	56	451	61	62	485	73	63	466	68	65	525	77
OLNEY	69	551	83	71	555	86	59	459	67	56	473	64	59	465	66	59	509	69
PAGE	72	563	87	76	573	91	73	492	86	75	516	90	75	504	90	70	542	84
PINE CREST	58	521	69	60	520	68	58	456	65	56	469	61	57	462	64	64	521	75
PINEY BRANCH	60	527	72	61	525	71	65	474	77	62	485	73	65	478	75	61	513	71
POOLESVILLE ES	63	536	77	61	523	70	57	453	63	61	481	70	59	467	68	65	525	77
POTOMAC	79	584	92	79	580	93	75	501	90	72	507	86	75	504	90	75	557	89
RITCHIE PARK	74	566	88	78	574	92	67	480	80	73	510	87	71	495	86	71	545	85
ROCK CREEK FOR.	72	563	87	73	560	88	66	474	77	63	485	73	65	476	75	69	536	82
ROCK CREEK VAL.	72	562	87	80	587	94	75	499	89	74	514	89	75	506	91	78	567	91
ROCKING HORSE RD	61	529	73	62	524	71	57	454	63	60	477	67	59	465	66	60	512	70
ROCK VIEW	61	527	72	62	525	71	57	454	63	59	476	67	59	465	66	63	519	74
ROLLING TERRACE	51	500	54	53	501	56	55	449	60	48	452	48	52	449	53	55	497	61
ROSEMARY HILLS	65	541	79	64	534	76	60	462	69	66	494	79	64	478	75	66	528	78
ROSEMONT	63	534	76	64	531	75	69	481	81	60	478	68	64	476	74	60	511	70
SEVEN LOCKS	75	570	89	74	558	87	75	497	88	74	513	89	76	504	90	68	533	80
SHERWOOD ES	64	536	77	66	539	79	60	460	66	63	486	74	62	473	72	65	526	77
SOMERSET	69	552	83	73	556	87	68	481	81	76	520	91	76	500	88	74	553	88
SOUTH LAKE	66	544	80	67	542	80	59	459	67	63	488	75	62	473	72	67	532	80
STEDWICK	71	558	85	74	565	89	71	491	86	75	516	90	76	504	90	71	544	85
STONEGATE	73	565	88	76	569	90	74	495	88	69	500	82	73	497	87	68	533	80
STRATHMORE	65	543	80	68	546	82	62	465	71	56	471	63	59	468	68	63	520	74
SUMMIT HALL	66	545	80	67	539	79	63	469	74	68	496	80	67	482	78	70	540	83
TRAVILAH	78	581	91	81	592	95	63	470	74	74	515	89	70	491	84	70	542	84
TWINBROOK	56	514	64	61	524	71	60	461	66	62	484	72	62	472	71	64	523	76
VIERS MILL	64	537	77	69	545	82	57	455	64	61	480	70	63	468	68	63	521	75
WASHINGTON GROVE	60	525	71	64	531	75	52	441	54	55	466	59	53	454	58	60	511	70
WATKINS MILL	66	548	82	71	551	84	64	471	75	64	488	75	65	476	75	64	523	76
WAYSIDE	73	564	87	77	571	91	77	503	91	77	522	92	79	511	93	76	558	89
WELLER ROAD	62	533	75	64	534	76	62	468	73	62	484	72	63	475	73	66	527	78
WESTBROOK	75	569	89	75	564	89	65	473	76	74	511	88	71	492	84	71	543	84
WESTOVER	70	558	85	74	566	90	71	487	84	74	517	90	74	500	88	72	546	85

TABLE 2 (continued)

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 FIFTH GRADE RESULTS

SCHOOL	SCHOOL #	# FOR BATTERY	TOTAL BATTERY			READING VOCABULARY			READING COMPREHENSION			TOTAL READING			SPELLING			LANGUAGE MECHANICS		
			NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK
WHEATON WOODS	788	66	60	475	63	54	473	60	57	494	64	55	477	62	60	535	68	57	528	65
WHETSTONE	558	76	70	499	83	71	517	84	66	524	79	58	516	84	64	549	75	70	563	83
WOOD ACRES	417	72	81	526	94	75	528	88	76	555	90	75	541	91	69	567	82	70	562	83
WOODFIELD	704	65	81	529	95	70	515	84	72	542	86	72	527	87	64	549	75	84	605	95
WOODLIN	764	32	66	491	79	62	492	73	63	513	74	63	499	76	57	526	64	69	561	82
WYNGATE	422	62	76	517	91	72	522	86	72	544	87	73	532	89	67	563	80	75	578	89

TABLE 2 (continued)

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 FIFTH GRADE RESULTS

SCHOOL	LANGUAGE EXPRESSION NCE MEAN	LANGUAGE EXPRESSION SS MEAN	LANGUAGE EXPRESSION PER RANK	TOTAL LANGUAGE NCE MEAN	TOTAL LANGUAGE SS MEAN	TOTAL LANGUAGE PER RANK	MATH COMPUTATION NCE MEAN	MATH COMPUTATION SS MEAN	MATH COMPUTATION PER RANK	MATH CONC & APP NCE MEAN	MATH CONC & APP SS MEAN	MATH CONC & APP PER RANK	TOTAL MATH NCE MEAN	TOTAL MATH SS MEAN	TOTAL MATH PER RANK	REFERENCE SKILLS NCE MEAN	REFERENCE SKILLS SS MEAN	REFERENCE SKILLS PER RANK
LATON WOODS	59	523	70	59	518	67	56	451	61	65	489	76	61	469	69	66	529	79
ETSTONE	67	545	81	71	551	84	66	476	76	65	492	78	67	484	79	68	536	82
D ACRES	76	574	90	76	567	90	76	503	91	80	531	94	80	517	95	77	562	90
DFIELD	73	583	92	85	599	96	83	522	95	76	517	90	82	519	95	76	558	89
LIN	66	552	83	71	554	86	57	454	63	66	496	80	63	475	73	68	534	81
NGATE	74	568	88	77	574	92	66	476	78	75	521	92	72	498	87	71	542	84
	69	549	82	71	549	84	7	335	2	62	483	72	44	432	39	72	544	85

TABLE 3

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 EIGHTH GRADE RESULTS

SCHOOL	SCHOOL #	# FOR BATTERY	TOTAL BATTERY			READING VOCABULARY			READING COMPREHENSION			TOTAL READING			SPELLING			LANGUAGE MECHANICS		
			NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK
BAKER	705	267	65	592	76	62	581	72	62	593	72	63	588	73	56	591	61	64	614	76
BANNEKER	533	285	66	596	78	64	589	75	65	604	76	65	597	77	57	595	63	61	603	71
BELT	767	298	57	567	63	55	554	59	57	574	63	55	564	61	54	585	58	60	600	70
CABIN JOHN	606	242	73	623	88	69	608	83	67	611	79	69	611	82	62	616	72	71	643	86
EASTERN	775	179	63	585	72	63	584	73	64	601	75	64	594	76	56	599	65	64	615	76
FARQUHAR	507	343	67	600	79	65	592	77	64	602	76	65	598	77	60	607	68	65	616	76
FROST	237	420	74	628	89	71	615	86	70	625	84	72	622	86	63	622	74	74	653	88
GAITHERSBURG JR	554	343	59	574	67	56	559	61	60	585	68	58	573	66	55	588	60	60	599	69
HOOVER	228	283	73	623	88	70	611	84	71	627	85	71	621	86	63	619	73	74	652	88
KEY	311	245	61	581	70	59	571	67	61	589	70	61	581	70	56	591	61	60	598	69
KING	107	215	61	579	69	60	574	68	61	590	70	61	583	71	59	606	68	64	613	75
LEE	818	398	64	591	75	62	582	72	63	596	73	63	590	74	59	603	66	66	621	76
MONTGOMERY VILL.	557	285	70	613	84	66	605	82	69	618	8[illegible]	70	613	83	64	624	75	70	639	84
PARKLAND	812	207	64	590	75	62	581	72	61	590	70	62	586	72	57	597	64	62	607	73
POOLESVILLE HS	152	113	60	577	68	57	562	62	58	577	64	57	565	64	52	577	54	56	583	62
PYLE	428	475	75	632	90	74	626	89	73	634	87	75	634	90	64	627	76	72	645	86
REDLAND	562	290	68	605	81	66	597	79	65	605	77	67	602	79	59	603	66	67	626	80
RIDGEVIEW	105	328	70	612	84	64	590	76	66	610	79	66	602	79	62	618	73	69	635	83
SLIGO	778	408	59	574	67	59	572	67	59	583	67	60	578	68	53	578	55	58	593	67
TAKOMA PARK JR	755	148	55	559	59	52	546	55	54	565	59	54	557	56	52	575	53	50	562	51
TILDEN	232	449	73	622	88	68	603	81	69	620	82	70	613	83	60	610	69	73	648	8[illegible]
JULIUS WEST	211	262	62	583	71	60	574	68	62	592	71	62	584	71	53	579	55	60	601	70
WESTLAND	412	366	70	615	85	68	604	82	69	620	82	69	615	84	61	614	71	69	635	83
WHITE OAK	811	297	66	599	79	63	587	75	66	608	78	66	599	78	57	597	64	63	611	74
WOOD	620	421	68	606	82	66	597	79	65	605	77	67	602	79	60	607	68	66	624	79

TABLE 3 (continued)

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 EIGHTH GRADE RESULTS

SCHOOL	LANGUAGE EXPRESSION NCE MEAN			TOTAL LANGUAGE NCE MEAN			MATH COMPUTATION NCE MEAN			MATH CONC & APP NCE MEAN			TOTAL MATH NCE MEAN			REFERENCE SKILLS NCE MEAN		
	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK	NCE MEAN	SS MEAN	PER RANK
BAKER	55	583	67	62	595	72	65	608	76	67	599	79	66	602	79	61	585	70
BANNEKER	63	597	74	63	600	74	66	612	78	66	595	78	66	601	79	63	592	74
BELT	55	568	59	57	580	65	57	579	64	59	571	66	58	573	66	58	577	66
CABIN JOHN	72	630	86	74	639	88	72	635	85	74	624	88	74	627	88	70	618	84
EASTERN	60	588	70	63	599	74	56	576	63	62	583	72	60	576	68	62	589	72
FARQUHAR	65	606	78	66	612	79	62	597	72	69	606	82	66	601	79	65	601	77
FROST	70	624	84	73	639	88	72	635	85	73	623	88	73	626	88	70	617	84
GAITHERSBURG JR	58	581	66	60	588	69	56	574	62	62	582	72	59	577	68	60	584	70
HOOVER	70	623	84	73	637	88	71	631	84	72	618	86	73	623	87	72	624	86
KEY	58	580	65	60	587	68	59	587	68	63	587	74	62	585	72	64	597	76
KING	56	573	62	60	588	69	56	574	62	63	587	74	60	579	69	61	585	70
LEE	59	584	68	63	598	73	63	601	74	65	593	77	65	595	76	65	601	77
MONTGOMERY VILL.	67	611	80	70	624	84	65	609	77	69	606	82	68	607	81	67	605	79
PARKLAND	61	592	71	62	598	73	61	594	71	67	600	80	65	596	76	60	582	69
POOLESVILLE HS	55	572	61	56	575	62	62	598	72	65	592	76	64	593	75	59	577	66
PYLE	71	630	86	73	640	86	70	627	83	75	631	90	73	629	88	70	618	84
REDLAND	65	606	78	67	615	80	66	612	78	70	611	84	68	610	82	65	601	77
RIDGEVIEW	64	601	76	68	617	81	67	618	80	71	618	86	70	618	85	66	604	79
SLIGO	58	579	65	59	584	67	57	580	64	60	576	69	59	576	67	61	584	70
TAKOMA PARK JR	54	564	57	52	561	55	57	579	64	57	565	63	57	569	64	55	564	60
TILDEN	66	616	81	71	632	86	73	639	86	74	625	88	74	630	89	67	609	81
JULIUS WEST	58	581	66	60	589	69	59	586	67	63	587	74	62	585	72	61	587	71
WESTLAND	68	621	83	70	631	86	66	611	78	70	611	84	69	610	82	67	606	79
WHITE OAK	62	595	73	64	602	75	63	603	74	69	608	83	67	606	81	65	599	77
WOOD	65	606	78	67	615	80	67	615	79	69	607	82	69	610	82	67	607	80

TABLE 4

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 ELEVENTH GRADE RESULTS

SCHOOL	SCHOOL #	# FOR BATTERY	TOTAL BATTERY NCE MEAN	TOTAL BATTERY SS MEAN	TOTAL BATTERY PER RANK	READING VOCABULARY NCE MEAN	READING VOCABULARY SS MEAN	READING VOCABULARY PER RANK	READING COMPREHENSION NCE MEAN	READING COMPREHENSION SS MEAN	READING COMPREHENSION PER RANK	TOTAL READING NCE MEAN	TOTAL READING SS MEAN	TOTAL READING PER RANK	SPELLING NCE MEAN	SPELLING SS MEAN	SPELLING PER RANK	LANGUAGE MECHANICS NCE MEAN	LANGUAGE MECHANICS SS MEAN	LANGUAGE MECHANICS PER RANK
BETHESDA-CH. CH.	406	396	68	695	83	66	695	80	67	684	79	68	693	81	60	666	70	65	676	78
M. BLAIR	757	403	52	626	55	51	621	52	53	625	56	52	624	54	52	627	54	54	627	58
CHURCHILL	602	490	73	714	86	69	702	82	69	693	82	70	700	83	65	686	77	70	693	83
DAMASCUS HS	701	247	58	647	65	56	641	61	57	643	64	57	644	63	53	634	57	57	641	64
EINSTEIN	769	228	58	650	65	59	658	68	61	658	70	61	660	70	54	636	57	56	634	61
GAITHERSBURG HS	551	369	57	644	63	55	636	59	54	632	59	55	636	60	53	634	57	58	643	65
W. JOHNSON	424	233	69	695	83	68	696	81	67	685	79	69	693	81	60	664	69	67	681	79
KENNEDY	815	327	61	660	69	59	658	68	60	656	69	61	659	69	56	648	62	59	648	67
MAGRUDER	510	270	62	668	73	59	655	67	59	654	68	60	656	68	56	644	61	63	665	74
R. MONTGOMERY	201	300	59	654	67	57	648	64	59	653	68	59	652	66	51	622	51	55	633	60
NORTHWOOD	796	294	61	663	71	58	654	66	60	657	69	60	658	69	54	639	59	61	658	71
PAINT BRANCH	315	296	62	668	73	64	676	74	61	661	71	63	670	73	56	648	62	60	651	68
PEARY	806	299	61	661	70	57	649	64	56	648	66	58	650	66	58	655	65	63	665	74
POOLESVILLE HS	152	94	56	649	65	57	647	63	58	648	66	58	650	66	55	640	59	53	625	57
ROCKVILLE	230	340	68	693	82	63	674	74	66	681	78	65	680	77	60	665	69	66	678	78
SENECA VALLEY	104	482	62	666	72	60	660	68	60	655	68	61	661	70	56	645	61	58	645	66
SHERWOOD HS	503	271	62	667	72	58	652	65	58	649	66	59	652	66	57	650	63	61	658	71
SPRINGBROOK	798	467	68	692	82	66	689	79	65	677	77	67	685	79	60	663	69	67	680	79
WHEATON	762	255	53	626	55	52	627	55	53	626	56	53	627	56	48	609	46	51	616	53
WHITMAN	427	471	74	722	90	73	718	86	72	706	85	74	716	87	65	687	77	69	691	83
WOODWARD	222	220	71	708	86	67	692	79	67	682	78	68	690	80	64	683	76	67	682	80
WOOTTON	234	365	70	701	84	70	704	83	67	684	79	69	696	82	62	670	71	62	663	73

TABLE 4 (continued)

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY SCHOOL
FALL, 1982 ELEVENTH GRADE RESULTS

SCHOOL	LANGUAGE EXPRESSION NCE MEAN	LANGUAGE EXPRESSION SS MEAN	LANGUAGE EXPRESSION PER RANK	TOTAL LANGUAGE NCE MEAN	TOTAL LANGUAGE SS MEAN	TOTAL LANGUAGE PER RANK	MATH COMPUTATION NCE MEAN	MATH COMPUTATION SS MEAN	MATH COMPUTATION PER RANK	MATH CONC & APP NCE MEAN	MATH CONC & APP SS MEAN	MATH CONC & APP PER RANK	TOTAL MATH NCE MEAN	TOTAL MATH SS MEAN	TOTAL MATH PER RANK	REFERENCE SKILLS NCE MEAN	REFERENCE SKILLS SS MEAN	REFERENCE SKILLS PER RANK
BETHESDA-CH. CH.	68	688	81	68	691	82	63	670	73	67	686	78	65	681	77	64	673	75
M. BLAIR	52	620	53	53	625	55	52	621	54	53	628	56	53	625	55	55	634	59
CHURCHILL	71	704	86	72	706	86	67	689	79	72	710	86	71	704	84	68	690	81
DAMASCUS HS	56	638	62	57	643	64	57	643	63	58	649	65	58	648	65	59	654	67
EINSTEIN	54	631	58	55	635	60	55	636	60	59	652	66	58	647	65	61	662	71
GAITHERSBURG HS	58	647	66	59	650	67	54	632	59	57	644	63	56	640	62	58	647	64
W. JOHNSON	64	673	76	67	683	79	66	683	77	67	690	80	68	690	80	65	678	77
KENNEDY	58	645	65	59	650	67	58	650	66	61	663	70	60	656	69	64	674	75
MAGRUDER	59	651	68	61	662	71	62	665	71	64	675	75	64	672	74	62	665	72
R. MONTGOMERY	58	647	66	57	644	64	58	649	65	61	660	69	60	657	69	60	656	68
NORTHWOOD	60	655	69	61	661	71	59	653	67	61	662	70	61	660	70	61	660	70
PAINT BRANCH	60	656	70	61	658	70	61	660	69	62	665	71	62	664	71	62	663	71
PEARY	61	656	70	62	665	73	60	656	68	61	660	69	60	659	69	61	661	70
POOLESVILLE HS	55	633	59	55	633	59	58	647	64	57	645	63	58	647	65	58	648	65
ROCKVILLE	64	671	76	66	680	78	64	675	74	69	696	82	68	690	80	64	673	75
SENECA VALLEY	60	653	68	60	655	69	59	654	67	62	668	72	62	665	72	63	670	74
SHERWOOD HS	63	667	74	63	668	74	60	659	69	61	662	70	61	662	71	59	652	66
SPRINGBROOK	65	676	77	67	685	80	64	675	74	67	687	79	66	685	78	66	681	78
WHEATON	52	620	53	52	620	53	53	624	55	54	629	57	54	629	57	57	642	62
WHITMAN	71	703	85	72	707	86	69	698	81	74	717	87	73	713	86	68	689	80
WOODWARD	67	685	80	68	691	82	68	694	80	72	710	86	72	706	85	65	676	76
WOOTTON	65	677	78	65	676	77	67	687	78	71	706	84	70	702	83	66	682	78

Total Battery Interquartile Ranges

The average scores reported in the previous section provide a concise summary of each school's performance on the CAT. However, the scores reported are only for the average student in the school and do not indicate how the scores are spread out. Given the mean score, one can only make a rough estimate as to how the highest and lowest scoring students are performing. The figures in this section show the spread of scores in each school and provide information about the performance of the top and bottom quarters of each school. This is done by using score bands to report the interquartile range for the CAT Total Battery for each school. The figures show the score (national percentile rank) of the student at each school's 25th and 75th percentile. Thus, the lowest 25 percent of the students in that school fall below the lower end of the range. Likewise, the highest 25 percent in that school scored above the upper end of the range. For example, if the upper end of the band were at the 96th percentile, the top 25 percent of the students in that school ranked in the upper four percent of the national norm sample.

Schools are presented in these figures in alphabetical order by grade. The first page for each grade follows:

Grade 3 -- Page 41

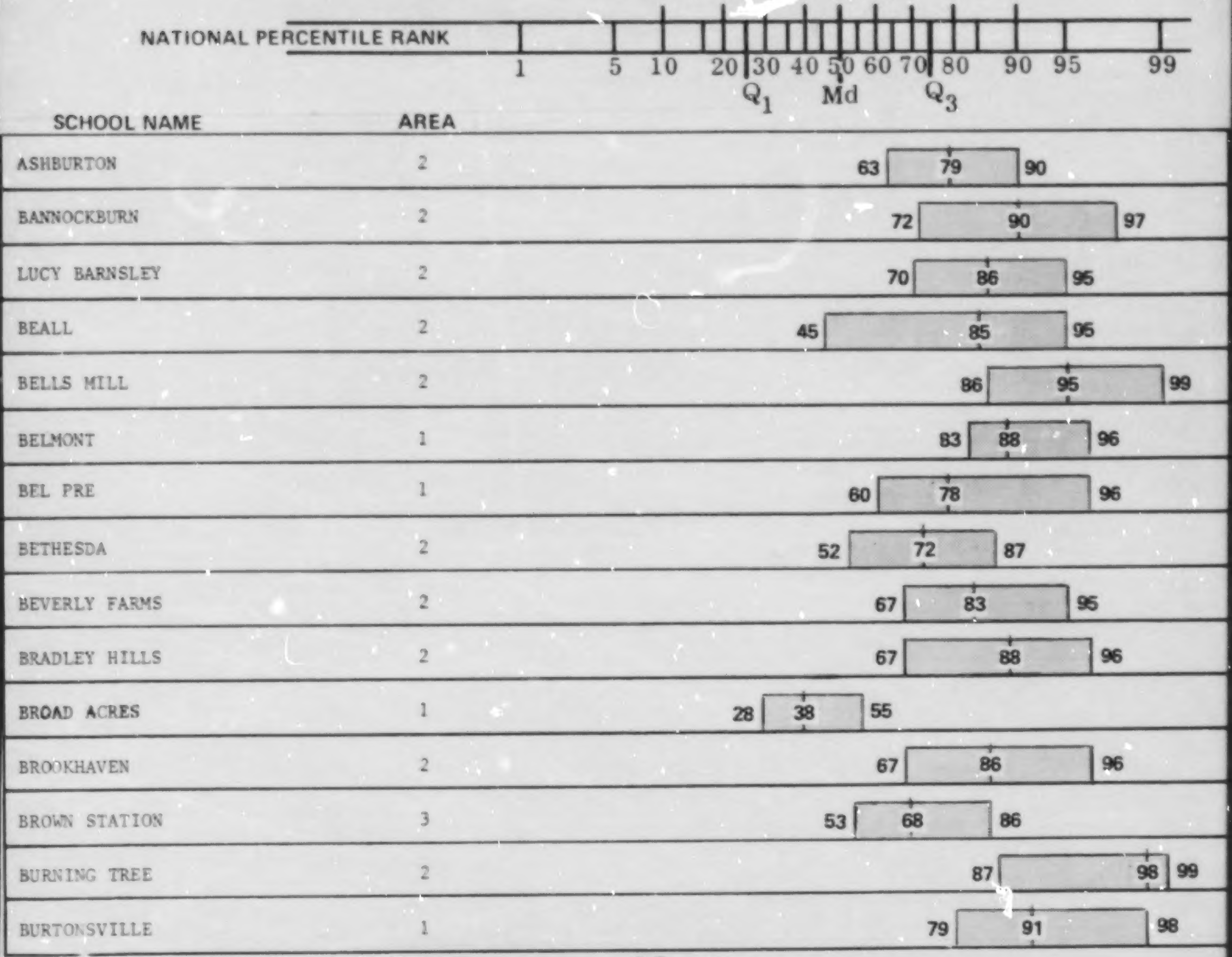
Grade 5 -- Page 48

Grade 8 -- Page 55

Grade 11 -- Page 57

County (all grades) -- Page 59

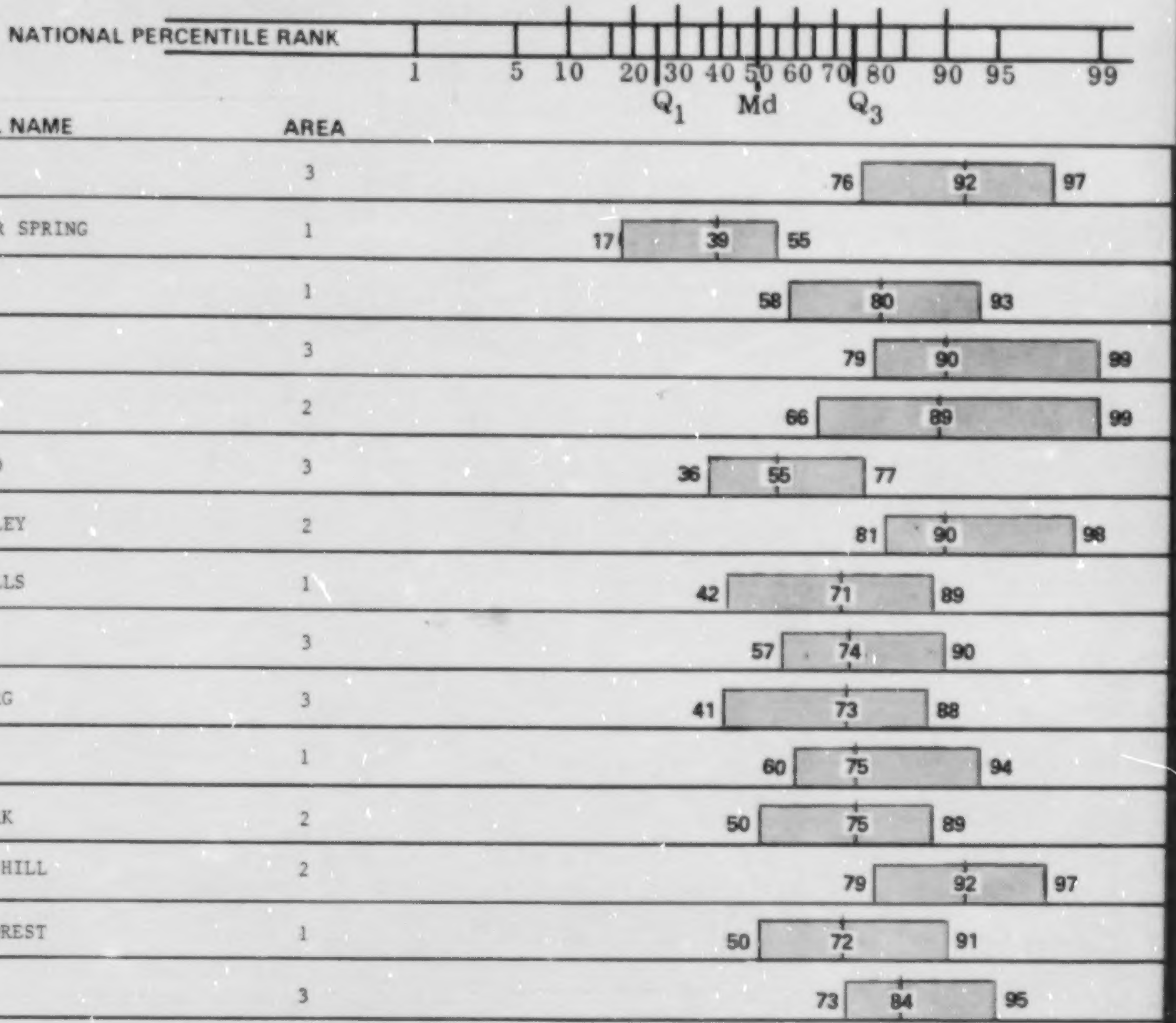
NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) – CALIFORNIA ACHIEVEMENT TESTS GRADE 3, TOTAL BATTERY, 1982-83



NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) – CALIFORNIA ACHIEVEMENT TESTS GRADE 3, TOTAL BATTERY, 1982-83 (cont.)

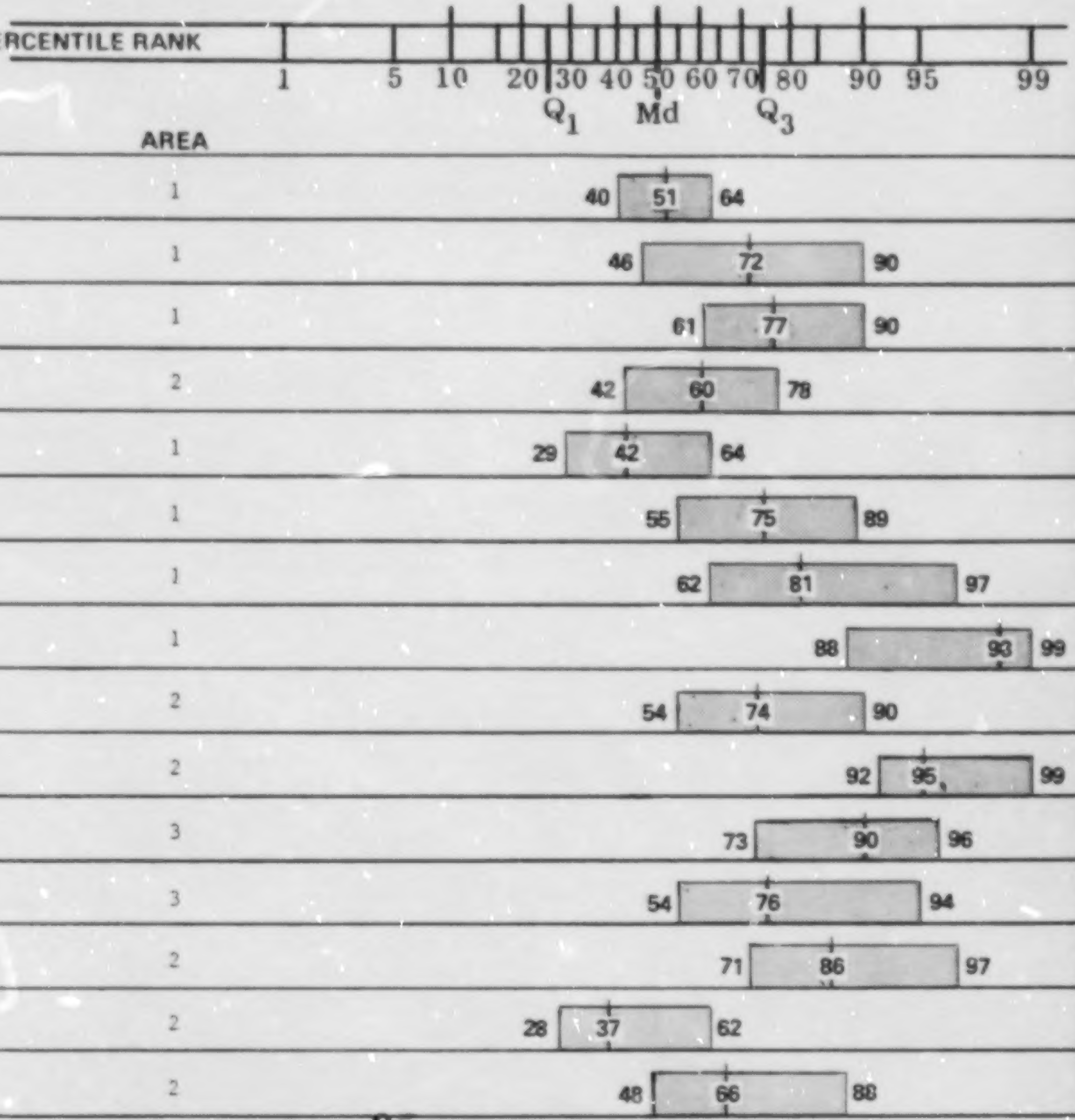
SCHOOL NAME	AREA	NATIONAL PERCENTILE RANK		
		Q_1	Md	Q_3
CANDLEWOOD	3	65	76	96
CANNON ROAD	1	63	90	97
CARDEROCK SPRINGS	2	83	94	95
CASHELL	3	79	94	99
CEDAR GROVE	3	39	75	89
CHEVY CHASE	2	48	83	98
CLARKSBURG	3	37	61	83
CLOVERLY	1	55	73	82
COLD SPRING	3	79	88	97
COLLEGE GARDENS	2	66	83	94
CONNECTICUT PARK	1	53	65	83
CRESTHAVEN	1	61	83	99
DAMASCUS	3	62	76	89
DARNESTOWN	3	53	73	93
DIAMOND	3	57	77	93

NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) – CALIFORNIA ACHIEVEMENT TESTS GRADE 3, TOTAL BATTERY, 1982-83 (cont.)



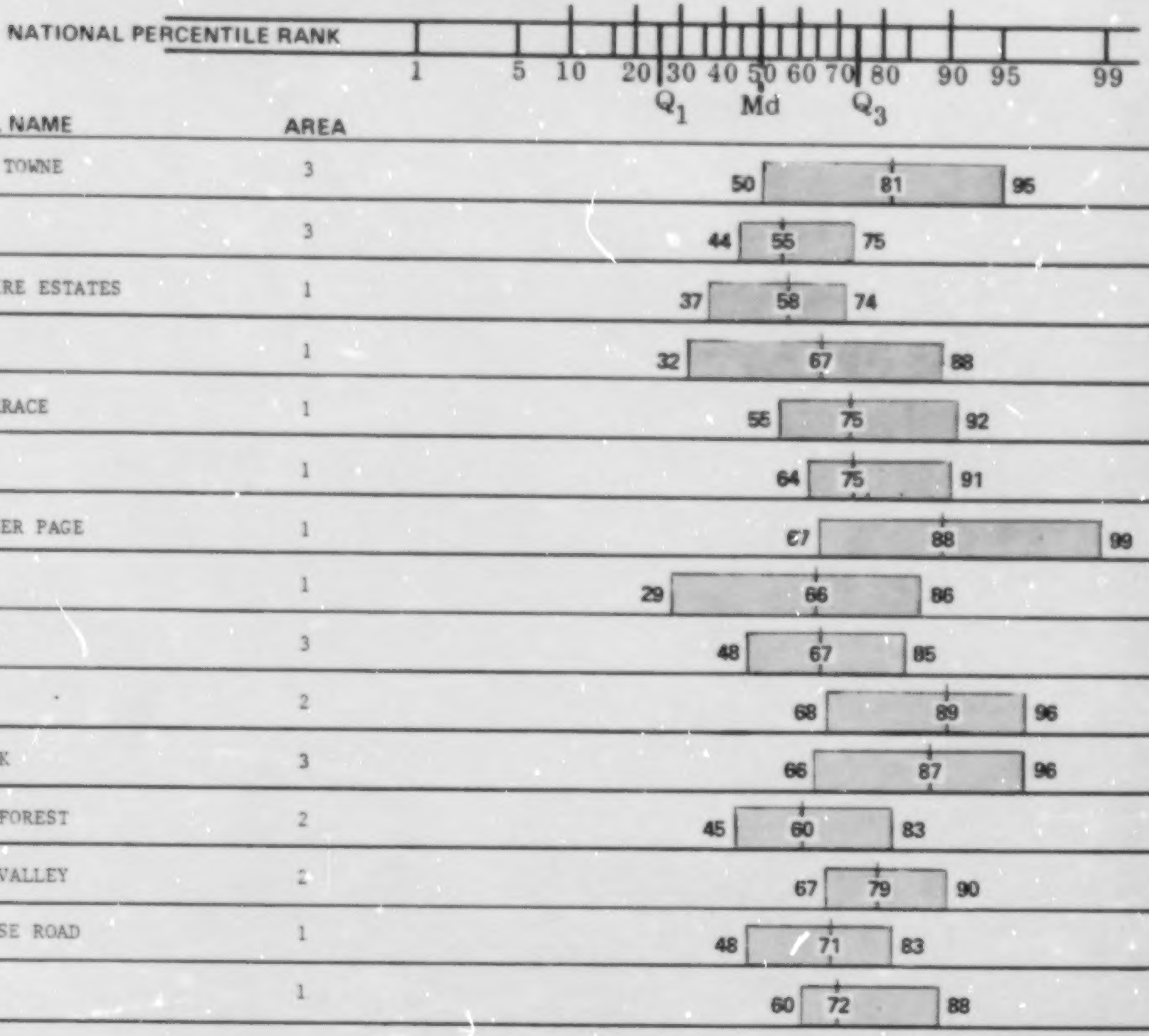
SCHOOL NAME	AREA	Q1	Md	Q3
DU FIEF	3	76	92	97
EAST SILVER SPRING	1	17	39	55
FAIRLAND	1	58	80	93
FALLSMEAD	3	79	90	99
FARMLAND	2	66	89	99
FIELDS ROAD	3	36	55	77
FLOWER VALLEY	2	81	90	98
FOREST KNOLLS	1	42	71	89
FOX CHAPEL	3	57	74	90
GAITHERSBURG	3	41	73	88
GALWAY	1	60	75	94
GARRETT PARK	2	50	75	89
GEORGETOWN HILL	2	79	92	97
GEORGIAN FOREST	1	50	72	91
GERMANTOWN	3	73	84	95

NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) – CALIFORNIA ACHIEVEMENT TESTS GRADE 3, TOTAL BATTERY, 1982-83 (cont.)



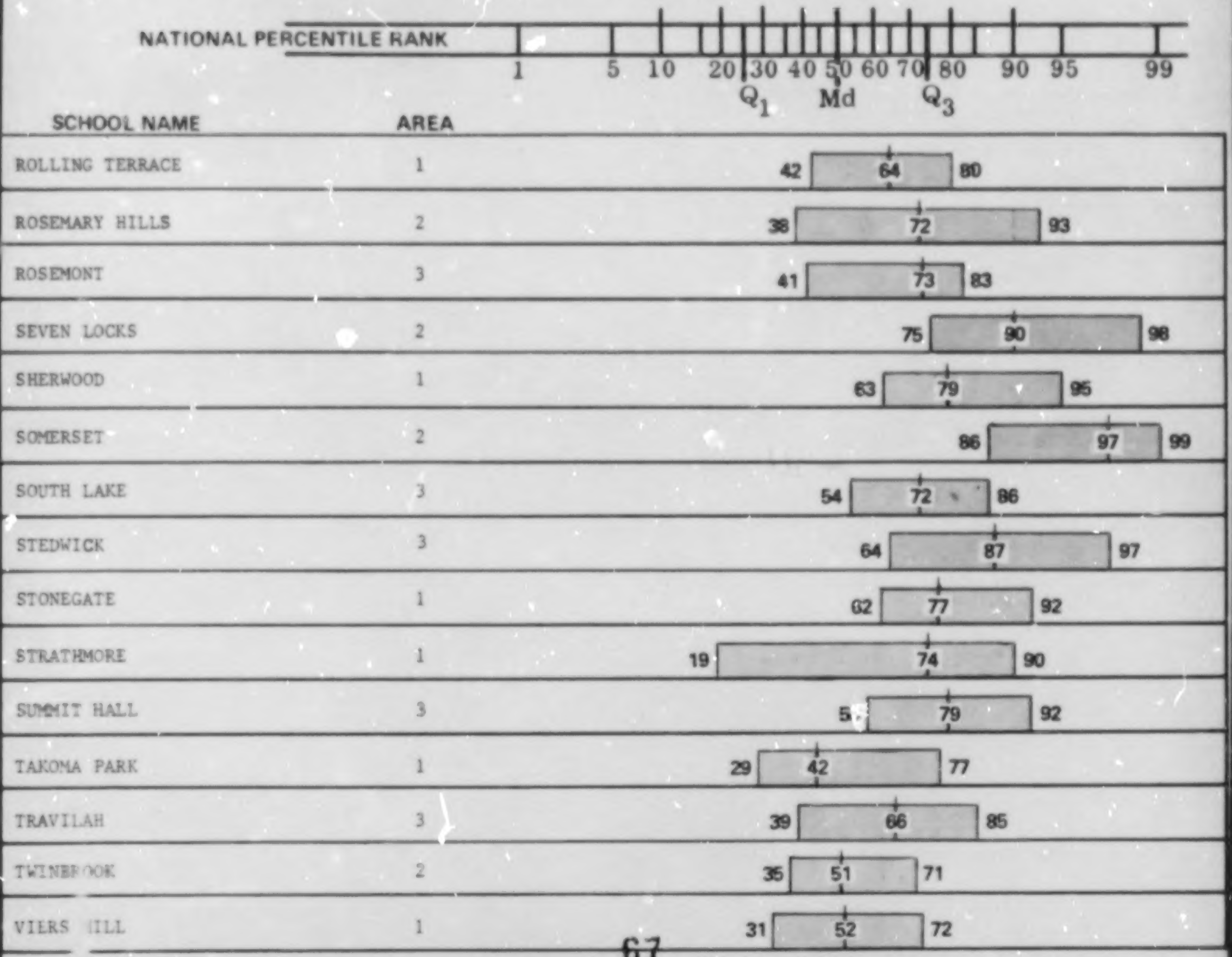
SCHOOL NAME	AREA	Q1	Md	Q3
GLEN HAVEN	1	40	51	64
GLENALLAN	1	46	72	90
GREENWOOD	1	61	77	90
HARMONY HILLS	2	42	60	78
HIGHLAND	1	29	42	64
HIGHLAND VIEW	1	55	75	89
JACKSON ROAD	1	62	81	97
KEMP MILL	1	88	93	99
KENSINGTON-PARKWOOD	2	54	74	90
LAKE NORMANDY	2	92	95	99
LAKEWOOD	3	73	90	96
LAYTONSVILLE	3	54	76	94
LUXMANOR	2	71	86	97
MARYVALE	2	28	37	62
MEADOW HALL	2	48	66	88

NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) – CALIFORNIA ACHIEVEMENT TESTS GRADE 3, TOTAL BATTERY, 1982-83 (cont.)



SCHOOL NAME	AREA	Q1	Md	Q3
MILL CREEK TOWNE	3	50	81	95
MONACACY	3	44	55	75
NEW HAMPSHIRE ESTATES	1	37	58	74
OAK VIEW	1	32	67	88
OAKLAND TERRACE	1	55	75	92
OLNEY	1	64	75	91
WILLIAM TYLER PAGE	1	67	88	99
PINE CREST	1	29	66	86
POOLESVILLE	3	48	67	85
POTOMAC	2	68	89	96
RITCHIE PARK	3	66	87	96
ROCK CREEK FOREST	2	45	60	83
ROCK CREEK VALLEY	2	67	79	90
ROCKING HORSE ROAD	1	48	71	83
ROCK VIEW	1	60	72	88

NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) – CALIFORNIA ACHIEVEMENT TESTS GRADE 3, TOTAL BATTERY, 1982-83 (cont.)



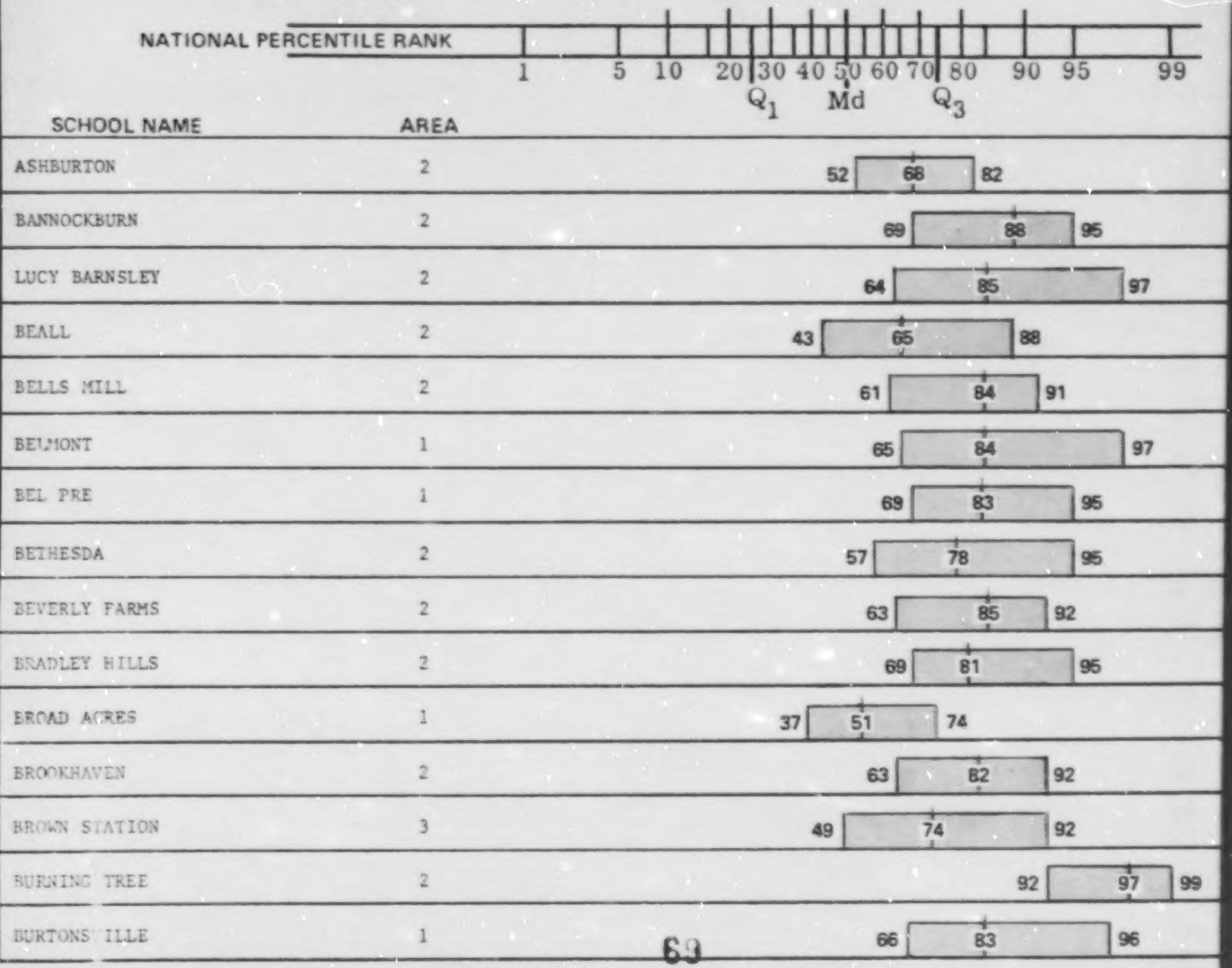
SCHOOL NAME	AREA	Q_1	Md	Q_3
ROLLING TERRACE	1	42	64	80
ROSEMARY HILLS	2	38	72	93
ROSEMONT	3	41	73	83
SEVEN LOCKS	2	75	90	98
SHERWOOD	1	63	79	95
SOMERSET	2	86	97	99
SOUTH LAKE	3	54	72	86
STEDWICK	3	64	87	97
STONEGATE	1	62	77	92
STRATHMORE	1	19	74	90
SUMMIT HALL	3	5[illegible]	79	92
TAKOMA PARK	1	29	42	77
TRAVILAH	3	39	66	85
TWINBROOK	2	35	51	71
VIERS MILL	1	31	52	72

NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) – CALIFORNIA ACHIEVEMENT TESTS GRADE 3, TOTAL BATTERY, 1982-83 (cont.)

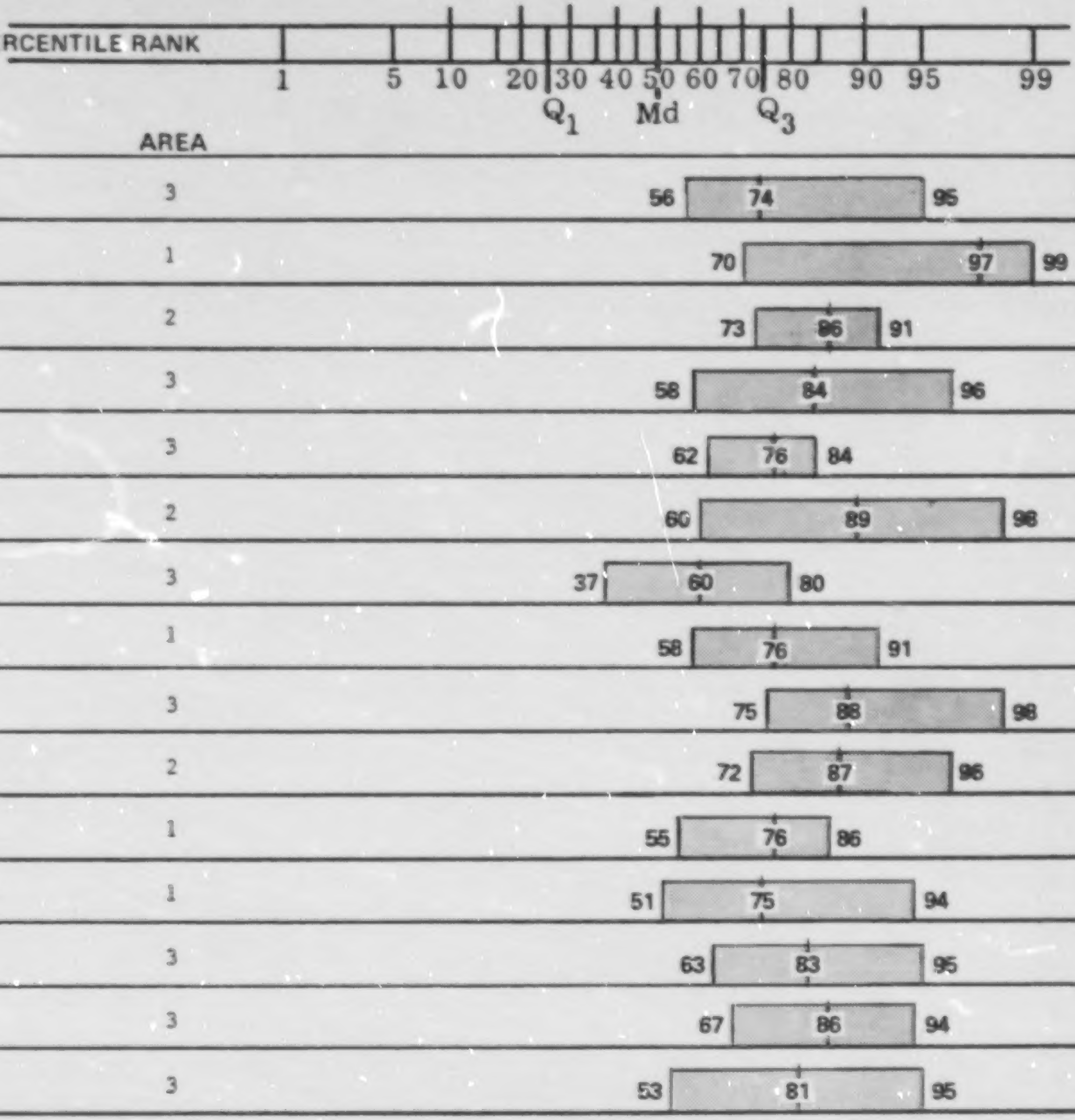
NATIONAL PERCENTILE RANK: 1 5 10 20 30 40 50 60 70 80 90 95 99

SCHOOL NAME	AREA	Q_1	Md	Q_3
WASHINGTON GROVE	3	37	64	77
WATKINS MILL	3	61	88	98
WAYSIDE	2	86	92	99
WELLER ROAD	1	35	51	83
WESTBROOK	2	70	91	98
WESTOVER	1	43	75	98
WHEATON WOODS	2	43	66	81
WHETSTONE	3	67	86	96
WOOD ACRES	2	75	92	99
WOODFIELD	3	69	84	96
WOODLIN	1	48	70	89
WYNGATE	2	76	90	98

NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) – CALIFORNIA ACHIEVEMENT TESTS GRADE 5, TOTAL BATTERY, 1982-83

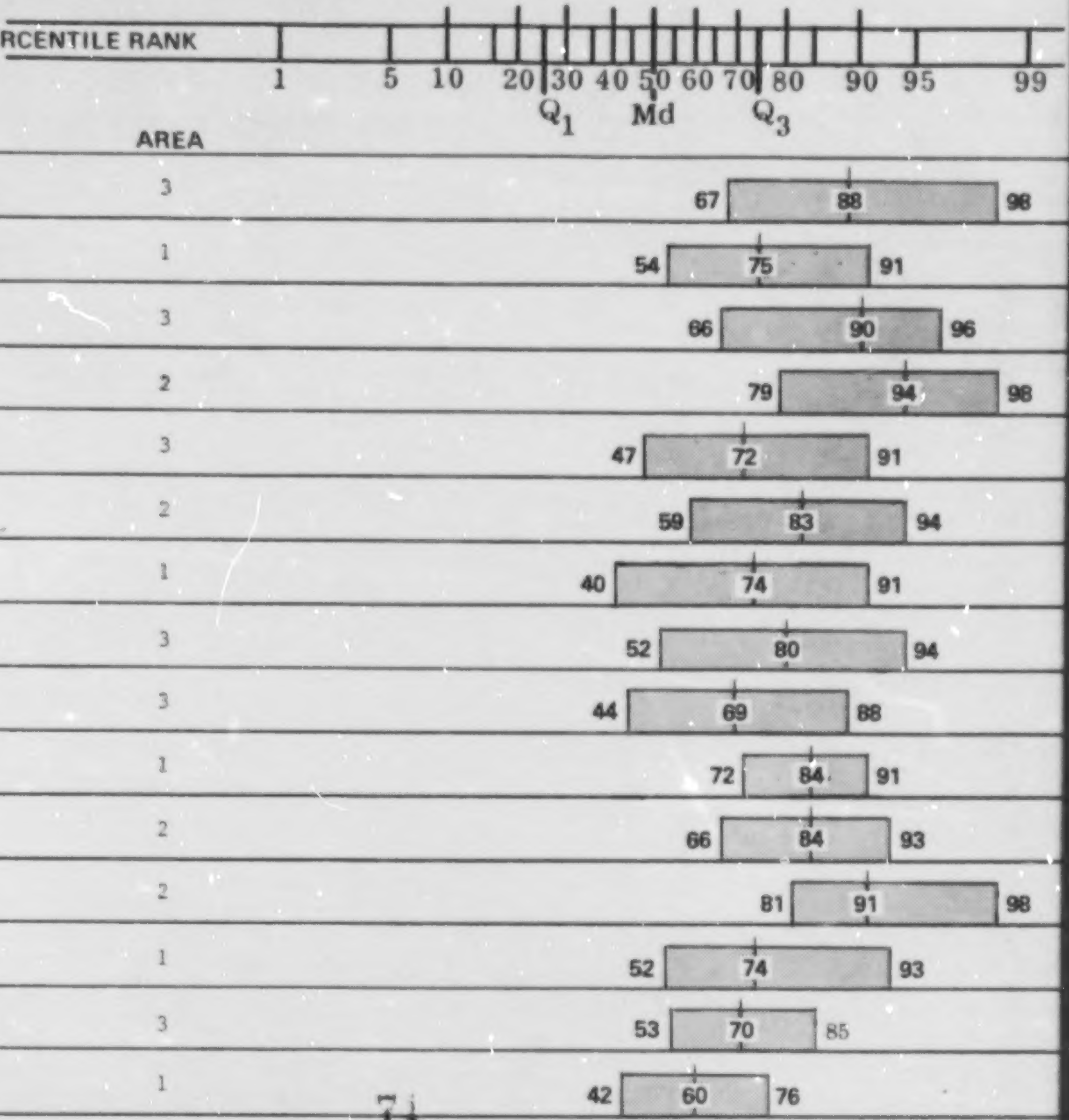


NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) — CALIFORNIA ACHIEVEMENT TESTS GRADE 5, TOTAL BATTERY, 1982-83 (cont.)



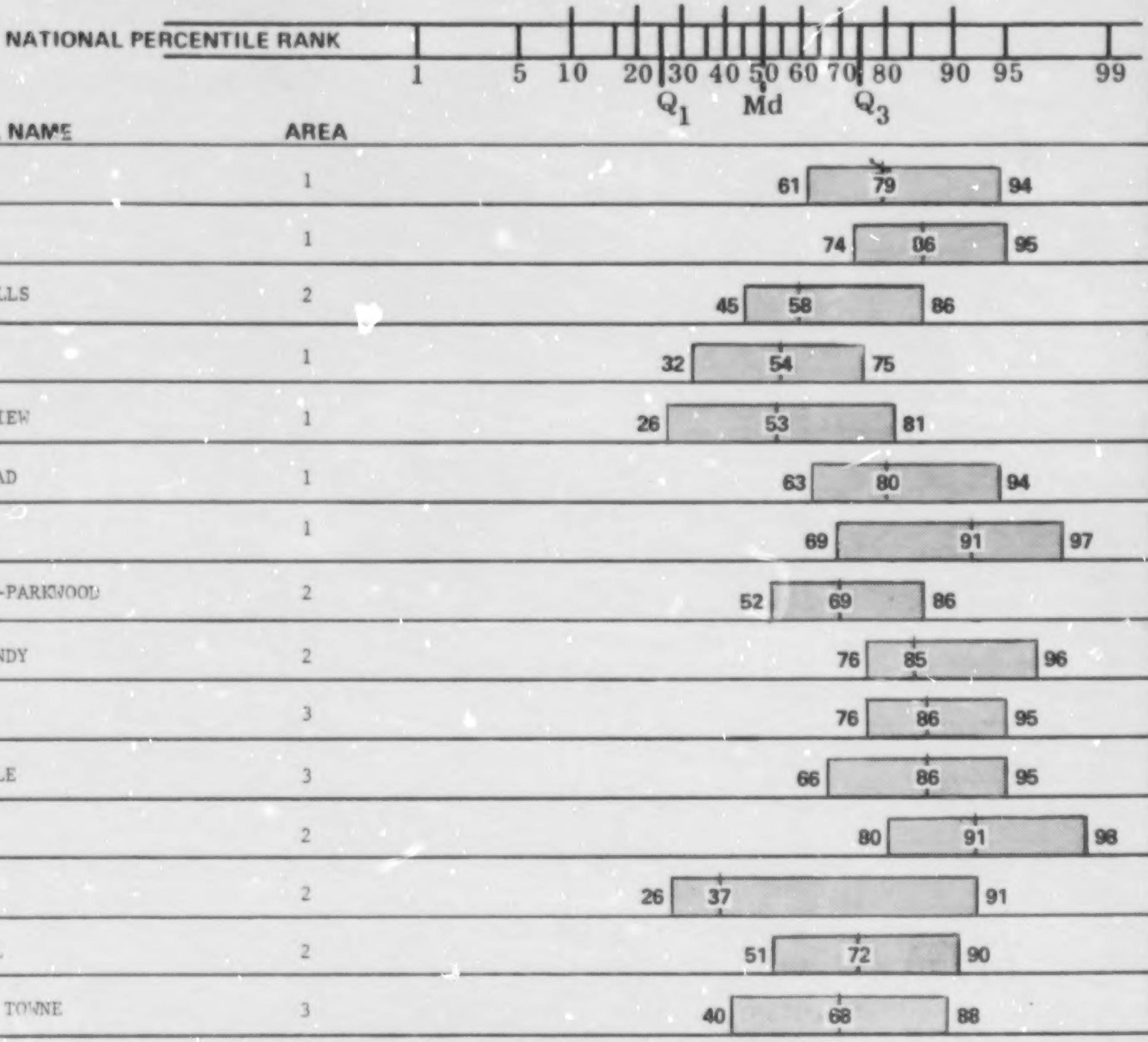
SCHOOL NAME	AREA	Q1	Md	Q3
CANDLEWOOD	3	56	74	95
CANNON ROAD	1	70	97	99
CARDEROCK SPRINGS	2	73	86	91
CASHELL	3	58	84	96
CEDAR GROVE	3	62	76	84
CHEVY CHASE	2	60	89	98
CLARKSBURG	3	37	60	80
CLOVERLY	1	58	76	91
COLD SPRING	3	75	88	98
COLLEGE GARDENS	2	72	87	96
CONNECTICUT PARK	1	55	76	86
CRESTHAVEN	1	51	75	94
DAMASCUS	3	63	83	95
DARNESTOWN	3	67	86	94
DIAMOND	3	53	81	95

NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) – CALIFORNIA ACHIEVEMENT TESTS GRADE 5, TOTAL BATTERY, 1982-83 (cont.)



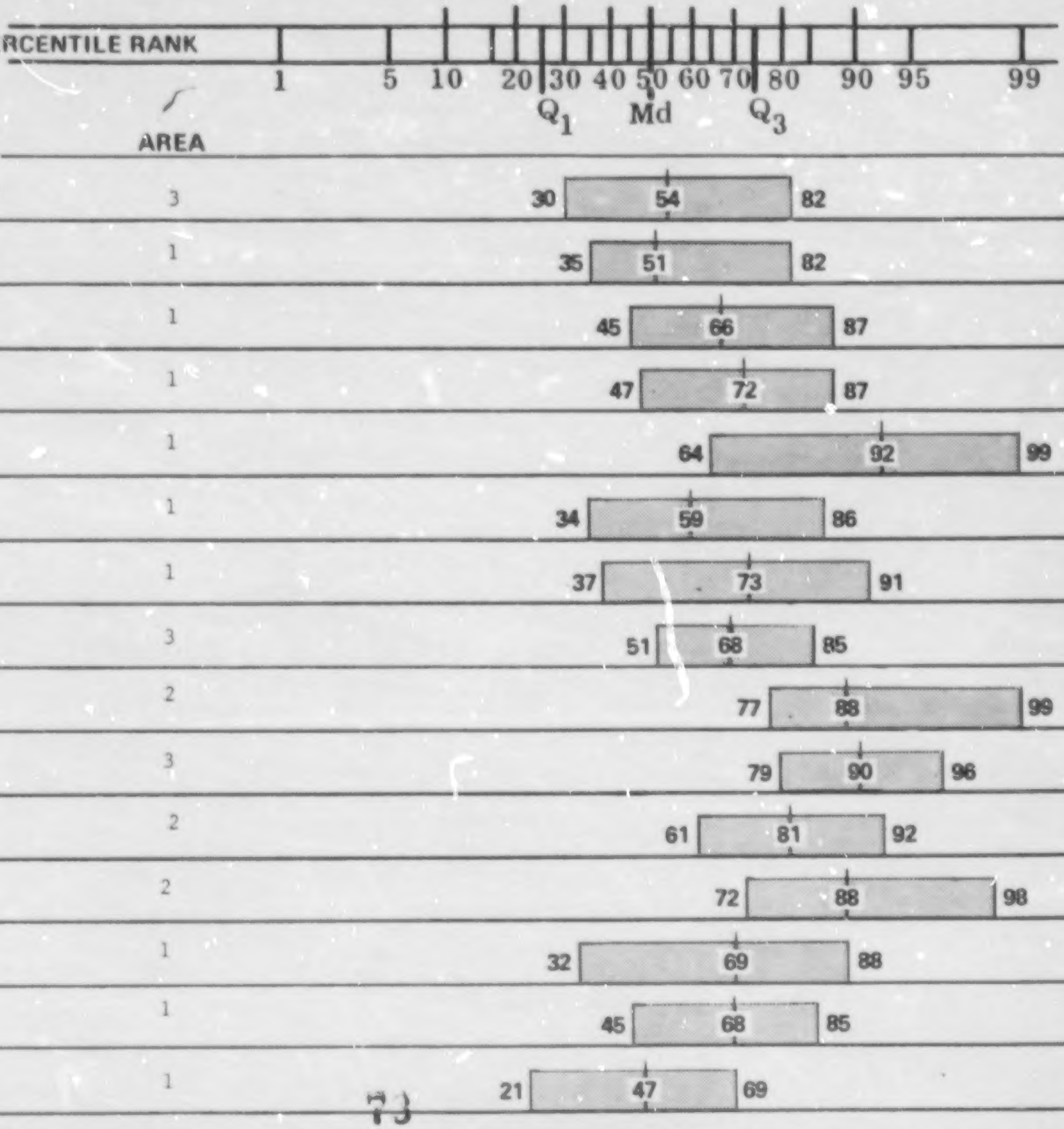
SCHOOL NAME	AREA	Q1	Md	Q3
DU FIEF	3	67	88	98
FAIRLAND	1	54	75	91
FALLSMEAD	3	66	90	96
FARMLAND	2	79	94	98
FIELDS ROAD	3	47	72	91
FLOWER VALLEY	2	59	83	94
FOREST KNOLLS	1	40	74	91
FOX CHAPEL	3	52	80	94
GAITHERSBURG	3	44	69	88
GALWAY	1	72	84	91
GARRETT PARK	2	66	84	93
GEORGETOWN HILL	2	81	91	98
GEORGIAN FOREST	1	52	74	93
GERMANTOWN	3	53	70	85
GLEN HAVEN	1	42	60	76

NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) — CALIFORNIA ACHIEVEMENT TESTS GRADE 5, TOTAL BATTERY, 1982-83 (cont.)



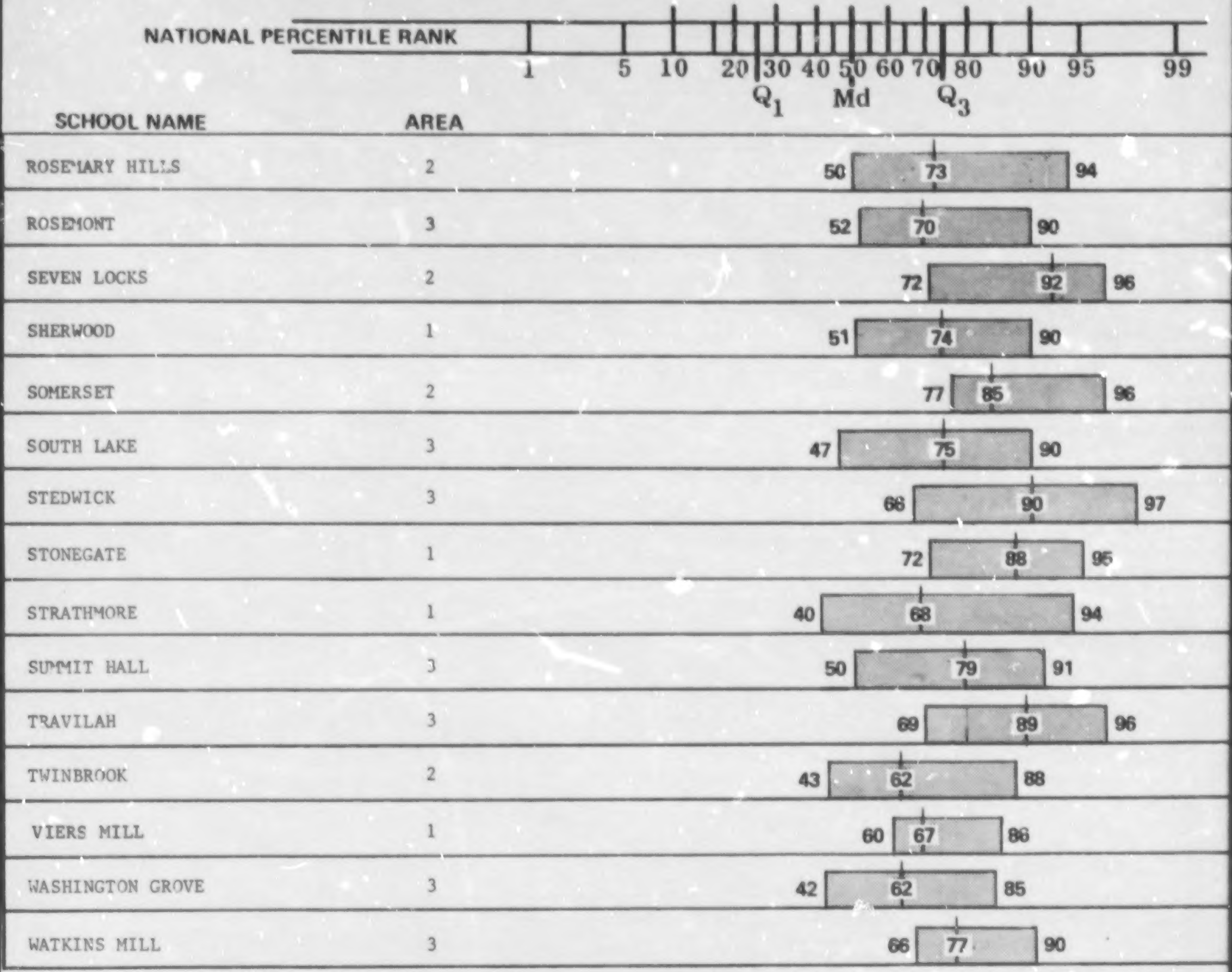
SCHOOL NAME	AREA	Q1	Md	Q3
GLENALLAN	1	61	79	94
GREENWOOD	1	74	86	95
HARMONY HILLS	2	45	58	86
HIGHLAND	1	32	54	75
HIGHLAND VIEW	1	26	53	81
JACKSON ROAD	1	63	80	94
KEMP MILL	1	69	91	97
KENSINGTON-PARKWOOD	2	52	69	86
LAKE NORMANDY	2	76	85	96
LAKEWOOD	3	76	86	95
LAYTONSVILLE	3	66	86	95
LUXMANOR	2	80	91	98
MARYVALE	2	26	37	91
MEADOW HALL	2	51	72	90
MILL CREEK TOWNE	3	40	68	88

NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) — CALIFORNIA ACHIEVEMENT TESTS GRADE 5, TOTAL BATTERY, 1982-83 (cont.)



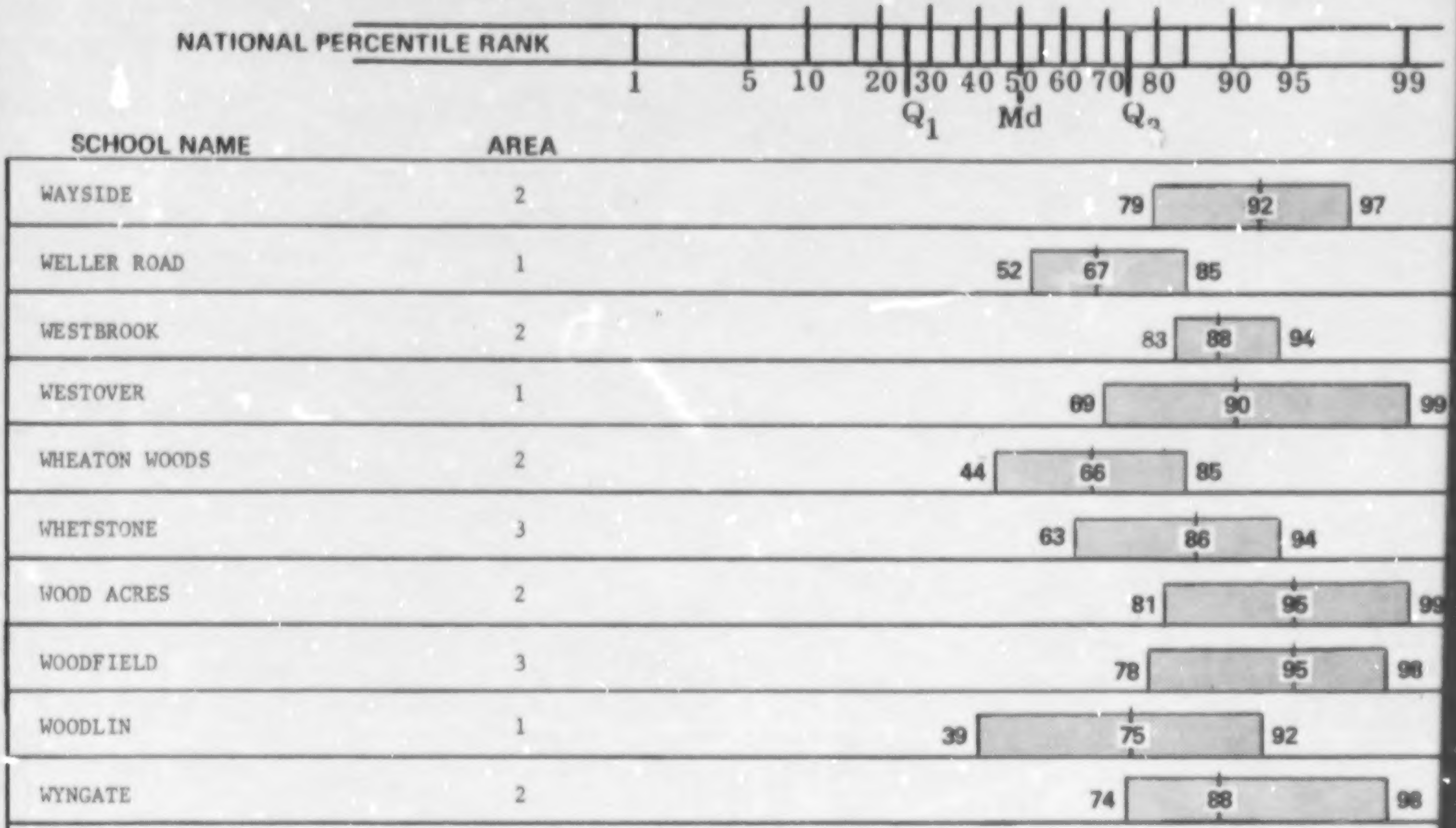
SCHOOL NAME	AREA	Q_1	Md	Q_3
MONOCACY	3	30	54	82
OAK VIEW	1	35	51	82
OAKLAND TERRACE	1	45	66	87
OLNEY	1	47	72	87
WILLIAM TYLER PAGE	1	64	92	99
PINE CREST	1	34	59	86
PINEY BRANCH	1	37	73	91
POOLESVILLE	3	51	68	85
POTOMAC	2	77	88	99
RITCHIE PARK	3	79	90	96
ROCK CREEK FOREST	2	61	81	92
ROCK CREEK VALLEY	2	72	88	98
ROCKING HORSE ROAD	1	32	69	88
ROCK VIEW	1	45	68	85
ROLLING TERRACE	1	21	47	69

NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) — CALIFORNIA ACHIEVEMENT TESTS GRADE 5, TOTAL BATTERY, 1982-83 (cont.)



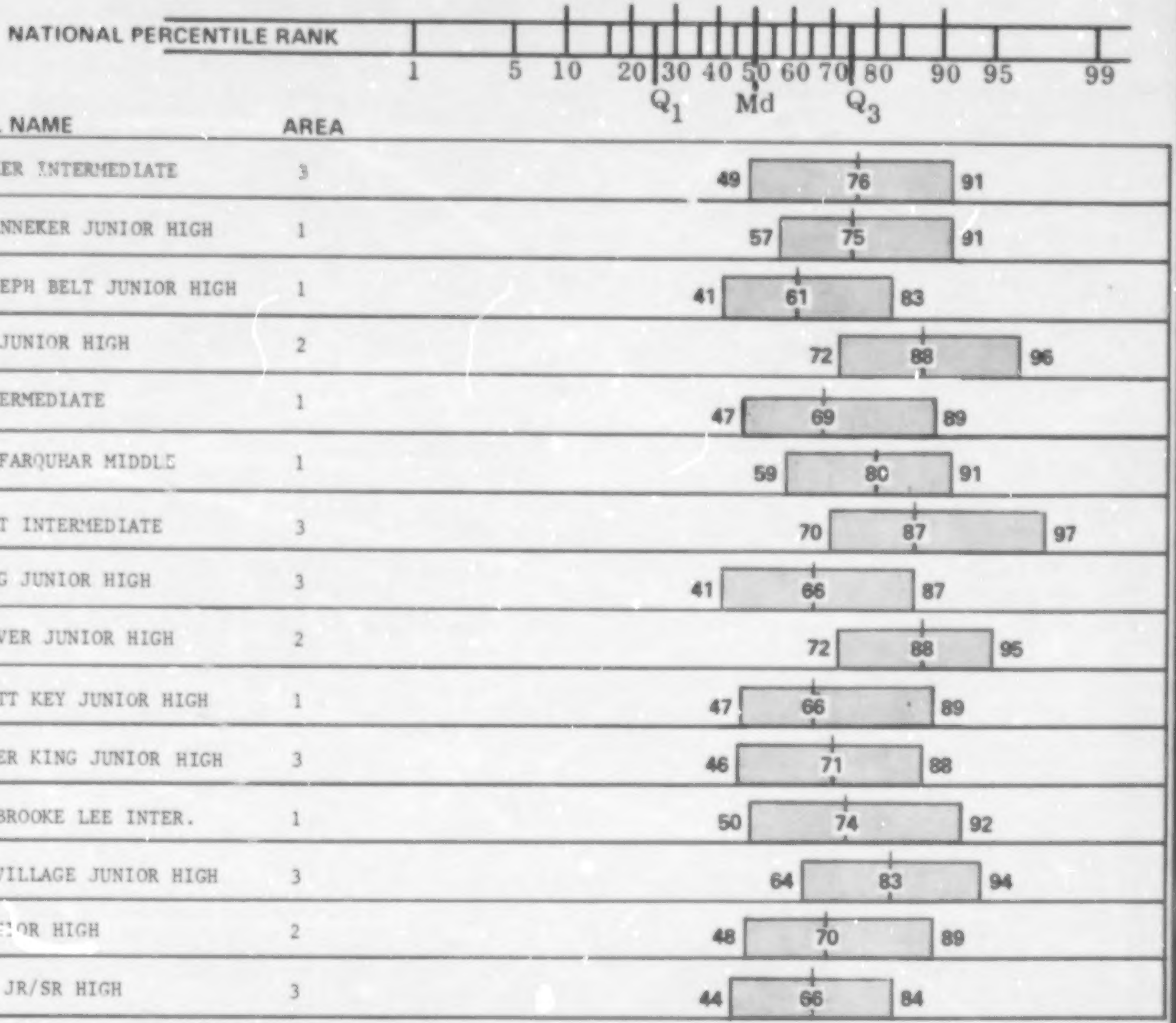
SCHOOL NAME	AREA	Q_1	Md	Q_3
ROSEMARY HILLS	2	50	73	94
ROSEMONT	3	52	70	90
SEVEN LOCKS	2	72	92	96
SHERWOOD	1	51	74	90
SOMERSET	2	77	85	96
SOUTH LAKE	3	47	75	90
STEDWICK	3	66	90	97
STONEGATE	1	72	88	95
STRATHMORE	1	40	68	94
SUMMIT HALL	3	50	79	91
TRAVILAH	3	69	89	96
TWINBROOK	2	43	62	88
VIERS MILL	1	60	67	86
WASHINGTON GROVE	3	42	62	85
WATKINS MILL	3	66	77	90

NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) – CALIFORNIA ACHIEVEMENT TESTS GRADE 5, TOTAL BATTERY, 1982-83 (cont.)



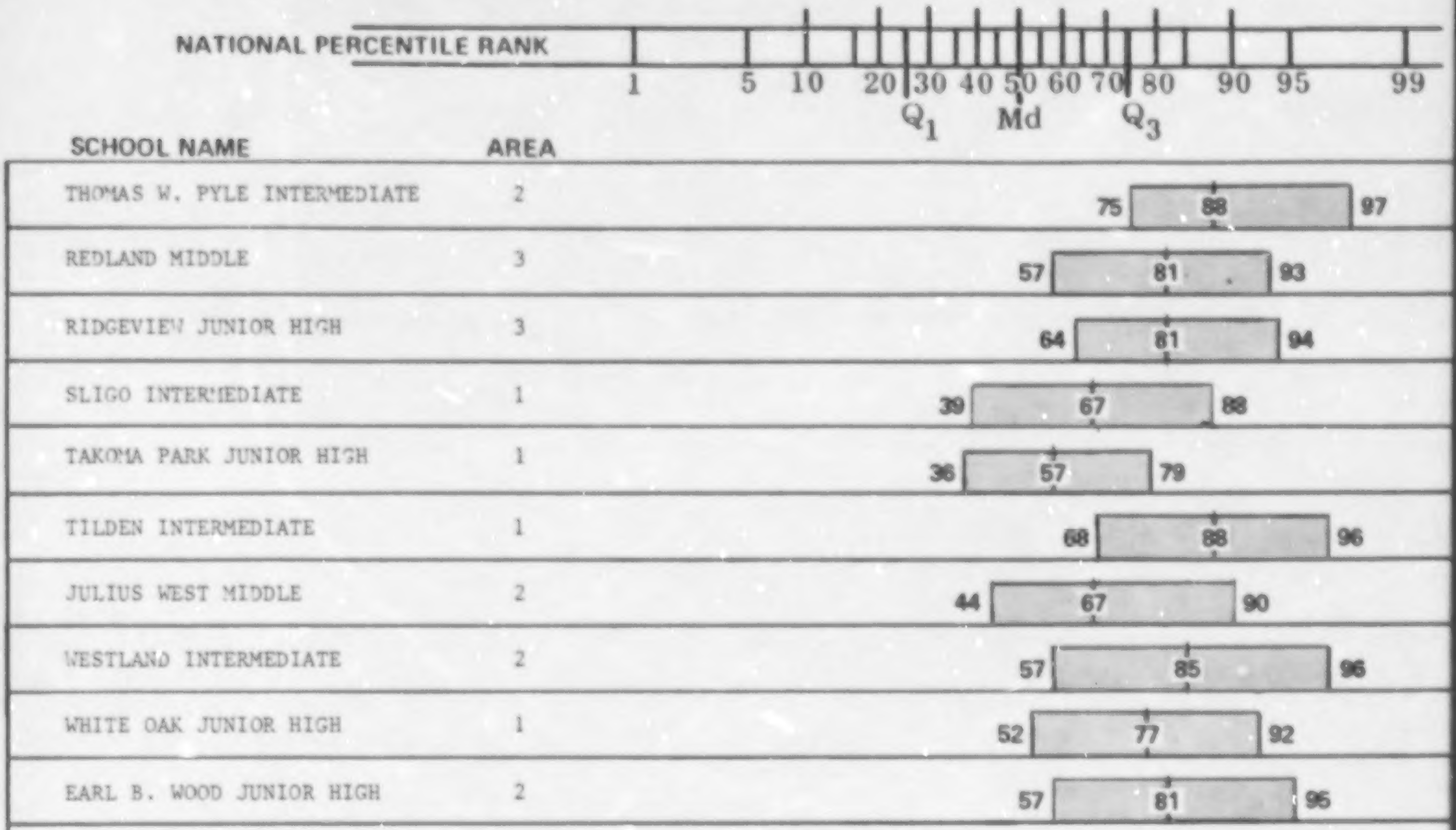
SCHOOL NAME	AREA	Q_1	Md	Q_3
WAYSIDE	2	79	92	97
WELLER ROAD	1	52	67	85
WESTBROOK	2	83	88	94
WESTOVER	1	69	90	99
WHEATON WOODS	2	44	66	85
WHETSTONE	3	63	86	94
WOOD ACRES	2	81	95	99
WOODFIELD	3	78	95	98
WOODLIN	1	39	75	92
WYNGATE	2	74	88	98

NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) – CALIFORNIA ACHIEVEMENT TESTS GRADE 8, TOTAL BATTERY, 1982-83

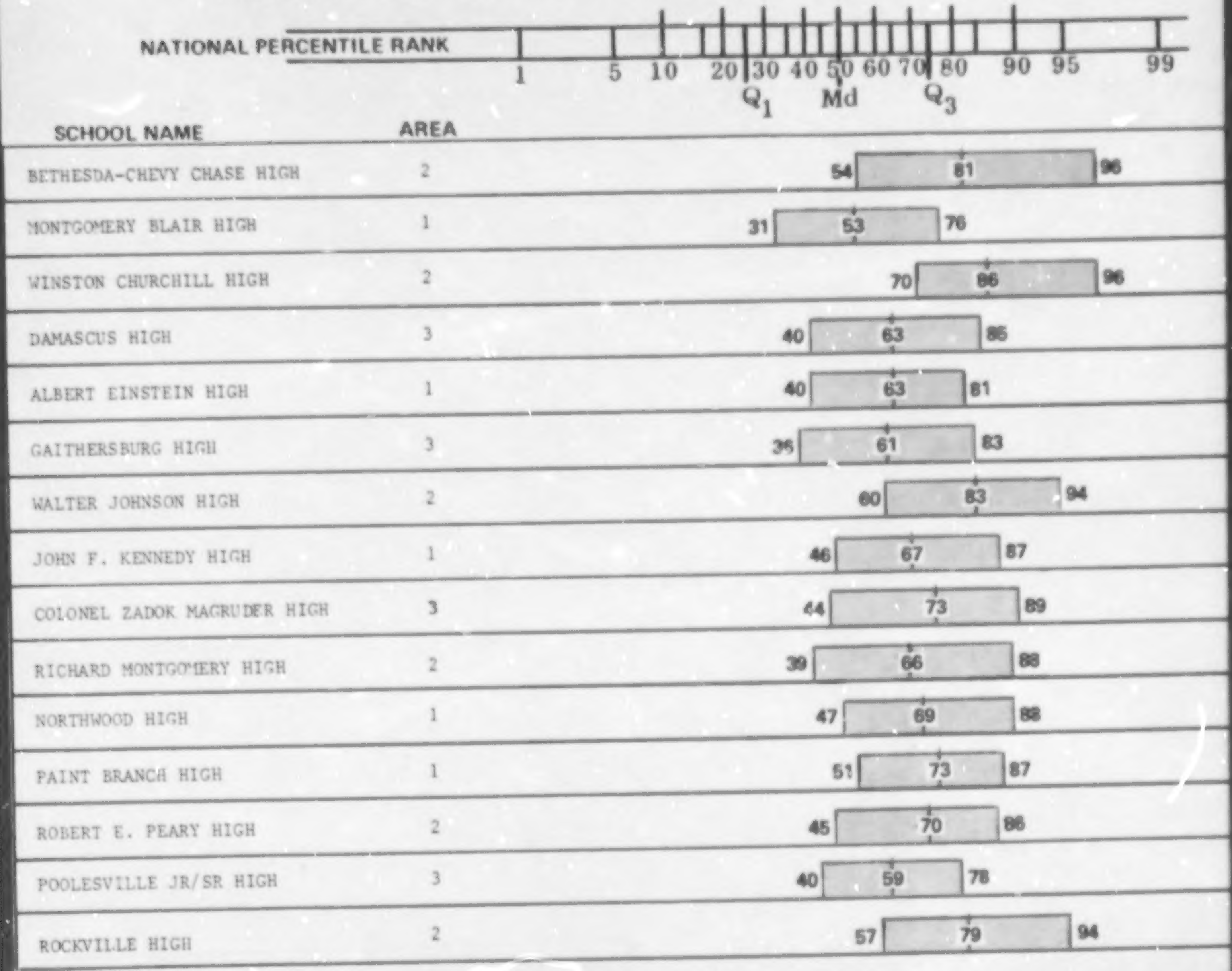


SCHOOL NAME	AREA	Q1	Md	Q3
JOHN T. BAKER INTERMEDIATE	3	49	76	91
BENJAMIN BANNEKER JUNIOR HIGH	1	57	75	91
COLONEL JOSEPH BELT JUNIOR HIGH	1	41	61	83
CABIN JOHN JUNIOR HIGH	2	72	88	96
EASTERN INTERMEDIATE	1	47	69	89
WILLIAM H. FARQUHAR MIDDLE	1	59	80	91
ROBERT FROST INTERMEDIATE	3	70	87	97
GAITHERSBURG JUNIOR HIGH	3	41	66	87
HERBERT HOOVER JUNIOR HIGH	2	72	88	95
FRANCIS SCOTT KEY JUNIOR HIGH	1	47	66	89
MARTIN LUTHER KING JUNIOR HIGH	3	46	71	88
COLONEL E. BROOKE LEE INTER.	1	50	74	92
MONTGOMERY VILLAGE JUNIOR HIGH	3	64	83	94
PARKLAND JUNIOR HIGH	2	48	70	89
POOLESVILLE JR/SR HIGH	3	44	66	84

NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) – CALIFORNIA ACHIEVEMENT TESTS GRADE 8, TOTAL BATTERY, 1982-83 (cont.)

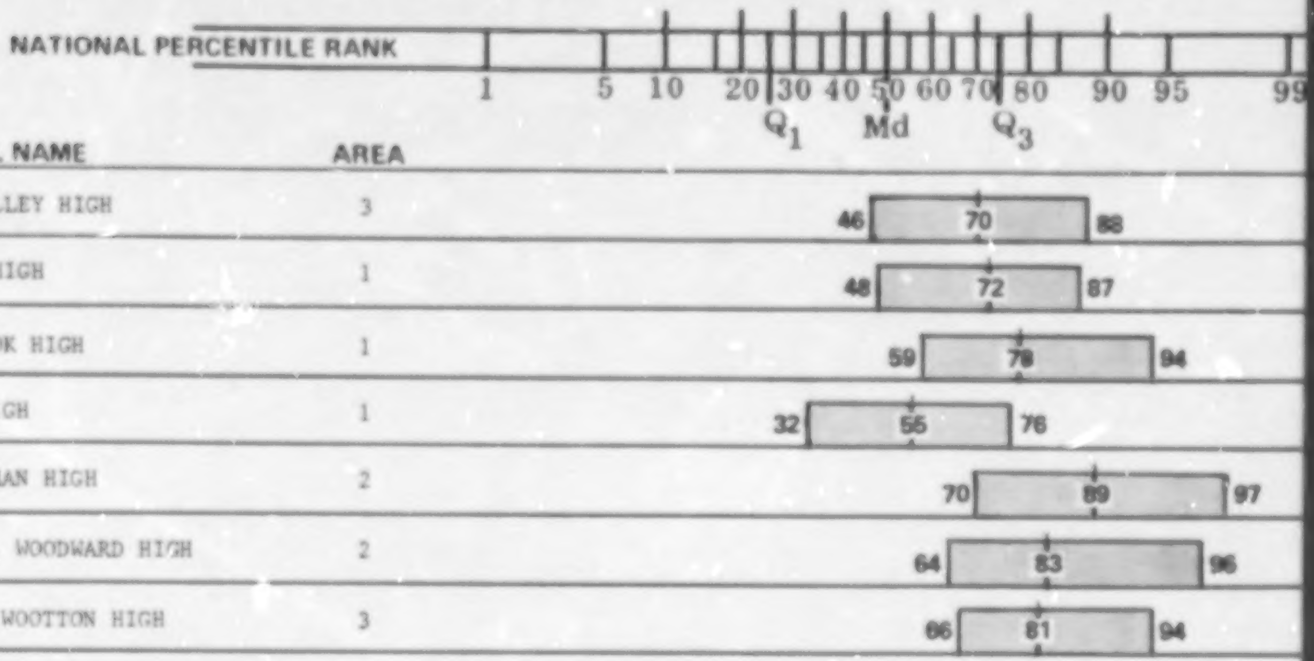


NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) – CALIFORNIA ACHIEVEMENT TESTS GRADE 11, TOTAL BATTERY, 1982-83



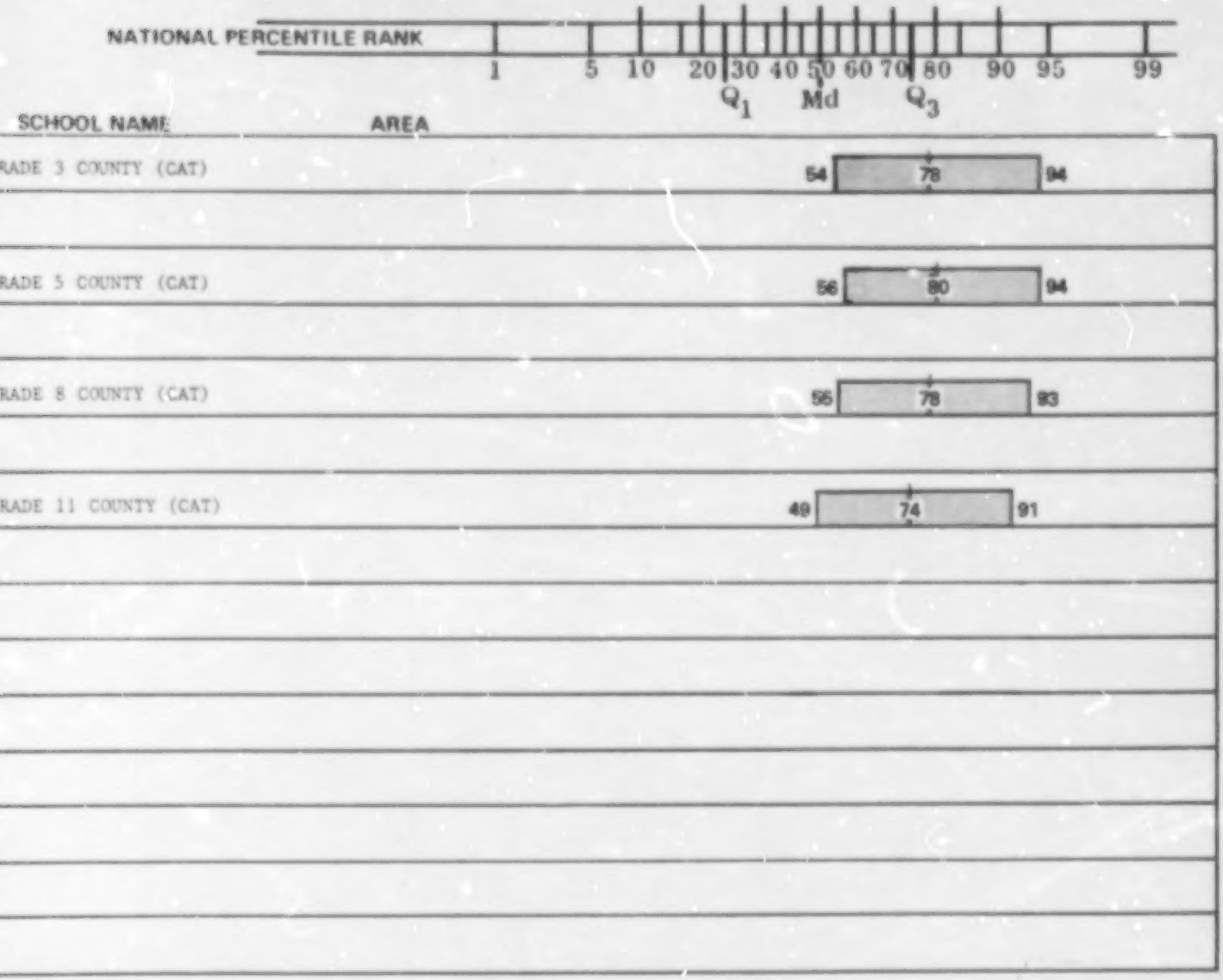
SCHOOL NAME	AREA	Q_1	Md	Q_3
BETHESDA-CHEVY CHASE HIGH	2	54	81	96
MONTGOMERY BLAIR HIGH	1	31	53	76
WINSTON CHURCHILL HIGH	2	70	86	96
DAMASCUS HIGH	3	40	63	85
ALBERT EINSTEIN HIGH	1	40	63	81
GAITHERSBURG HIGH	3	36	61	83
WALTER JOHNSON HIGH	2	60	83	94
JOHN F. KENNEDY HIGH	1	46	67	87
COLONEL ZADOK MAGRUDER HIGH	3	44	73	89
RICHARD MONTGOMERY HIGH	2	39	66	88
NORTHWOOD HIGH	1	47	69	88
PAINT BRANCH HIGH	1	51	73	87
ROBERT E. PEARY HIGH	2	45	70	86
POOLESVILLE JR/SR HIGH	3	40	59	78
ROCKVILLE HIGH	2	57	79	94

NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT EACH SCHOOL'S FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) – CALIFORNIA ACHIEVEMENT TESTS GRADE 11, TOTAL BATTERY, 1982-83 (cont.)



SCHOOL NAME	AREA	Q_1	Md	Q_3
SENECA VALLEY HIGH	3	46	70	88
SHERWOOD HIGH	1	48	72	87
SPRINGBROOK HIGH	1	59	78	94
WHEATON HIGH	1	32	55	76
WALT WHITMAN HIGH	2	70	89	97
CHARLES W. WOODWARD HIGH	2	64	83	96
THOMAS S. WOOTTON HIGH	3	66	81	94

NATIONAL PERCENTILE RANK FOR THE STUDENT SCORING AT THE COUNTY'S
FIRST QUARTILE (Q1), MEDIAN, AND THIRD QUARTILE (Q3) –
CALIFORNIA ACHIEVEMENT TESTS, TOTAL BATTERY, 1982-83



Longitudinal Trends

The school longitudinal analysis presents the score trends of students tested in the same school twice. This testing was done in Grades 3 and 5. This analysis provides a better indication of possible program strengths and weaknesses than does comparing scores for groups of different students[7]. When scores for different students are compared, differences in their ability can confound any judgements about quality. That is, brighter students may score higher because of their own talents, not because their educational program is any better. Using the results for the same group of students at two grade levels eliminates this confounding factor.

The identification of a school as having good or poor score trends in a given year can be affected by some of the interpretive problems discussed in an earlier section of this report. If the school longitudinal group has a score decline or increase, it could be the result of test characteristics, not the quality of the school program. One reason for score changes could be that the norm group for the Grade 5 test had higher ability than did the norm group for the Grade 3 test. Thus, when students were assigned standardized scores (e.g., percentile ranks) in Grade 5, they were being compared to brighter students and did not appear to perform as well. Another reason for score changes could be that the content of the Grade 5 test was a better match to the MCPS curriculum. In this case students would have been taught more of the Grade 5 content but not necessarily any more of the MCPS curriculum. Thus, their scores would have improved without their actually learning any more.

In an attempt to correct for the effect of test characteristics, a baseline for comparison has been established. This baseline is the average trend, countywide, for the students tested twice in the same school. This is being used on the assumption that, if these characteristics influence score trends, the county trend will indicate the amount of correction that is needed.

Substantial deviation (eight or more NCE points) from this baseline by a school trend is an indication of potential strength or weakness. School trends that are eight or more NCE points above the county trend will be indicated by a plus (+). School trends that are eight or more NCE points below the county trend will be indicated by a minus (-). When reviewing data for small groups (fewer than 30) one should use extra caution before reaching conclusions about program strengths and weaknesses. Mean scores for groups of fewer than 30 are somewhat unstable and can be unduly influenced by a few very high or very low scores. No results are reported for groups of fewer than 10 because of the extreme instability of mean scores for groups that size. County trends for students tested in the same school are summarized in Table 5. Also shown in that table are the differences required to indicate substantial change.

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[7] The groups might be the current third grade and last year's third grade or the current third and fifth grades.

While longitudinal data have the advantage cited above, they should not be used to label schools as having good or poor programs but only as a "flag" suggesting that a closer look needs to be taken. Judgment of the quality of a school program needs to be based on many things in addition to standardized test scores, no matter how well they are analyzed. Additionally, the statistic being used, difference scores, is somewhat unstable. For these and other reasons the longitudinal results for a given school are often not consistent from year to year. That is, the method will generally not flag a school two years in a row. Thus, before a school is cited as having a good or poor program based on longitudinal data, the results of several years need to be reviewed.

This section of the report contains three tables of school data. Table 6 presents the elementary school longitudinal results from Grade 3 to 5 for the 1982-83 school year. Given the grades in which we test, that is, 3, 5, 8, and 11, school longitudinal results can only be computed for elementary schools.

Table 7 presents a summary of four years of school longitudinal analyses. This makes it possible to see which schools are consistently identified as having good or poor programs. The table shows the subject areas and years in which each elementary school had a substantial deviation from the county longitudinal trend. The schools have been grouped into quarters based on the Grade 3 scores for the 1982-83 report group. If a school did not have scores in 1982-83, it was placed in the same quarter as last year. This grouping is helpful in evaluating results because there is a tendency for very high (low) scoring schools to have their scores go down (up) the next time they are tested[8]. Presenting the results for the similarly scoring schools together helps to determine if a school's trend is "what might be expected" (i.e., similar to schools that start at the same level) or if it is unusual for schools at that level and therefore merits special attention.

Tables 8 and 9 contain what will be called quasilongitudinal data. Table 8 shows the trends for students in paired schools. These students move as a group from one school to another between the Grade 3 testing and the Grade 5 testing. This occurs because at least one of the schools does not have both grades.

Table 9 shows the trends for students who were in consolidated schools. They moved as a group from one school to another in 1982-83 because of school closings. These students will not be included in the school's regular longitudinal group. An example would be students who moved from the closed Hungerford Park to Beall. However, students who were in Beall (then W. Rockville) in Grade 3 are included in the Beall longitudinal data in Table 6.

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8. The statistical name for this phenomenon is regression effect. A review of the four years of school longitudinal results shows a slight regression effect. Schools that start off (Grade 3) in the top quarter tend to have an average trend that is a point or two lower than the county trend. Likewise schools that start in the bottom quarter tend to have an average trend a point or two higher than the county trend. However, there is considerable variation in the trends in both groups.

TABLE 5

County Means and Magnitude of Trend Needed to Indicate Substantial* Change for Longitudinal and Nonlongitudinal School Results on the California Achievement Tests

	Longitudinal				Nonlongitudinal			
	Fall 1980 Grade 3 NCE Mean	Fall 1982 Grade 5 NCE Mean	Substantial Increase	Substantial Decrease	Fall 1980 Grade 3 NCE Mean	Fall 1982 Grade 5 NCE Mean	Substantial Increase	Substantial Decrease
Total Reading	64	67	11	5	57	60	11	5
Total Language	69	72	11	5	60	64	12	4
Total Mathematics	67	69	10	6	59	63	12	4
Total Battery	68	71	11	5	59	63	12	4

*Substantial is defined as eight or more NCE points above the county trend.

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TABLE 6

CALIFORNIA ACHIEVEMENT TESTS LONGITUDINAL RESULTS FOR STUDENTS TESTED IN THE SAME SCHOOL IN GRADE 3 (1980) AND GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Ashburton	425	3	35	57	63	59	67	60	68	59	67
		5	35	62	72	62	72	66	78	64	75
Bannockburn	420	3	29	65	76	76	89	74	87	72	85
		5	29	69	82	69-	82	68-	80	70	83
Lucy Barnsley	505	3	39	67	79	71	84	69	82	72	85
		5	39	68	80	77	90	72	85	75	88
Beall	207	3	21	55	59	57	63	53	56	55	59
		5	21	63	73	66	78	64+	75	64	75
Bells Mill	607	3	22	63	73	68	80	62	72	64	75
		5	22	66	78	74	87	64	75	69	82
Belmont	513	3	32	74	87	71	84	66	78	71	84
		5	32	71	84	77	90	72	85	76	89
Bel Pre	780	3	35	62	72	69	82	68	80	67	79
		5	35	67	79	74	87	73	86	72	85
Bethesda	401	3	21	70	83	77	90	69	82	72	85
		5	21	75	88	81	93	73	86	78	91

TABLE 6 (continued)

CALIFORNIA ACHIEVEMENT TESTS LONGITUDINAL RESULTS
FOR STUDENTS TESTED IN THE SAME SCHOOL IN GRADE 3 (1980) AND GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Beverly Farms	226	3	33	66	78	74	87	72	85	72	85
		5	33	72	85	75	88	64-	75	70	83
Bradley Hills	410	3	23	64	75	67	79	71	84	69	82
		5	23	71	84	74	87	73	86	75	88
Broad Acres	304	3	12	43	37	47	44	56	61	48	46
		5	12	53	56	54	58	55	59	54	58
Brookhaven	807	3	47	60	68	65	76	63	73	62	72
		5	47	66	78	73	86	69	82	70	83
Brown Station	559	3	56	63	73	73	86	61	70	64	75
		5	56	67	79	71	84	68	80	70	83
Burning Tree	419	3	48	80	92	84	95	88	96	88	96
		5	48	81	93	84	95	83	94	87	96
Burtonsville	302	3	18	62	72	70	83	62	72	65	76
		5	18	67	79	78	91	72+	85	74	87
Candlewood	508	3	39	67	79	68	80	72	85	71	84
		5	39	71	84	75	88	73	86	75	88

TABLE 6 (continued)

CALIFORNIA ACHIEVEMENT TESTS LONGITUDINAL RESULTS
FOR STUDENTS TESTED IN THE SAME SCHOOL IN GRADE 3 (1980) AND GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Cannon Road	310	3	35	66	78	69	82	66	78	68	80
		5	35	74	87	82+	94	79+	92	81+	93
Cashell	511	3	52	67	79	66	78	64	75	66	78
		5	52	66	78	74	87	73	86	72	85
Cedar Grove	703	3	26	64	75	66	78	61	70	63	73
		5	26	64	75	66	78	64	75	65	76
Chevy Chase	403	3	41	61	70	65	76	69	82	68	80
		5	41	71	84	73	86	74	87	74	87
Clarksburg	101	3	30	62	72	62	72	68	80	66	78
		5	30	60	68	66	78	60-	68	61-	70
Cloverly	308	3	46	62	72	64	75	61	70	64	75
		5	46	65	76	72	85	67	79	70	83
Cold Spring	238	3	39	68	80	70	83	69	82	70	83
		5	39	71	84	73	86	76	89	75	88
College Gardens	229	3	50	70	83	71	84	75	88	75	88
		5	50	73	86	74	87	74	87	76	89

TABLE 6 (continued)

CALIFORNIA ACHIEVEMENT TESTS LONGITUDINAL RESULTS
FOR STUDENTS TESTED IN THE SAME SCHOOL IN GRADE 3 (1980) AND GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Connecticut Park	779	3	22	67	79	81	93	62	72	67	79
		5	22	64	75	61-	70	67	79	65	76
Cresthaven	808	3	24	69	82	71	84	73	86	74	87
		5	24	71	84	74	87	71	84	74	87
Damascus	702	3	56	64	75	76	89	66	78	68	80
		5	56	67	79	69-	82	67	79	68	80
Darnestown	351	3	44	66	78	67	79	73	86	70	83
		5	44	69	82	71	84	72	85	72	85
Diamond	570	3	72	68	80	76	89	71	84	73	86
		5	72	68	80	67-	79	72	85	71	84
DuFief	241	3	57	64	75	71	84	74	87	72	85
		5	57	69	82	75	88	76	89	76	89
Fairland	303	3	36	69	82	70	83	68	80	70	83
		5	36	69	82	71	84	65	76	68	80
Fallsmead	233	3	37	69	82	74	87	72	85	73	86
		5	37	68	80	85+	95	71	84	75	88

TABLE 6 (continued)

CALIFORNIA ACHIEVEMENT TESTS LONGITUDINAL RESULTS
FOR STUDENTS TESTED IN THE SAME SCHOOL IN GRADE 3 (1980) AND GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Farmland	219	3	38	73	86	80	92	81	93	82	94
		5	38	72	85	83	94	82	94	83	94
Fields Road	566	3	30	56	61	60	68	56	61	57	63
		5	30	59	67	65	76	67+	79	65	76
Flower Valley	506	3	23	65	76	66	78	64	75	66	78
		5	23	63	73	74	87	71	84	70	83
Forest Knolls	803	3	17	63	73	58	65	61	70	62	72
		5	17	67	79	67	79	68	80	69	82
Fox Chapel	106	3	49	63	73	72	85	60	68	66	78
		5	49	65	76	72	85	67	79	70	83
Gaithersburg	553	3	40	51	52	56	61	56	61	55	59
		5	40	60	68	62	72	58	65	61	70
Galway	313	3	26	61	70	61	70	67	79	64	75
		5	26	68	80	70	83	77+	90	73	86
Garrett Park	204	3	27	60	68	64	75	67	79	65	76
		5	27	72+	85	75+	88	73	86	75	88

TABLE 6 (continued)

CALIFORNIA ACHIEVEMENT TESTS LONGITUDINAL RESULTS
FOR STUDENTS TESTED IN THE SAME SCHOOL IN GRADE 3 (1980) AND GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Georgetown Hill	221	3	41	77	90	74	87	79	92	81	93
		5	41	75	88	82	94	82	94	83	94
Georgian Forest	786	3	28	55	59	62	72	67	79	63	73
		5	28	66+	78	69	82	73	86	71	84
Germantown	102	3	43	64	75	72	85	64	75	66	78
		5	43	65	76	67-	79	65	76	66	78
Glen Haven	767	3	30	56	61	57	63	58	65	57	63
		5	30	58	65	59	67	53	56	57	63
Glenallan	817	3	29	55	59	64	75	57	63	58	65
		5	29	65	76	71	84	66	78	69+	82
Greenwood	512	3	57	67	79	78	91	71	84	73	86
		5	57	73	86	83	94	69	82	76	89
Harmony Hills	797	3	19	57	63	61	70	58	65	56	61
		5	19	54	58	58	65	65	76	58	65
Highland	774	3	43	50	50	51	52	45	41	47	44
		5	43	52	54	51	52	53	56	52	54

TABLE 6 (continued)

CALIFORNIA ACHIEVEMENT TESTS LONGITUDINAL RESULTS FOR STUDENTS TESTED IN THE SAME SCHOOL IN GRADE 3 (1980) AND GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Highland View	784	3	19	70	83	67	79	72	85	70	83
		5	19	71	84	70	83	66-	78	70	83
Jackson Road	305	3	38	64	75	71	84	64	75	67	79
		5	38	69	82	69	82	67	79	70	83
Kemp Mill	805	3	26	75	88	84	95	95	98	92	98
		5	26	75	88	82	94	85-	95	84-	95
Kensington-Parkwood	783	3	22	57	63	61	70	58	65	58	65
		5	22	62	72	62	72	58	65	61	70
Lake Normandy	231	3	45	75	88	76	89	77	90	78	91
		5	45	72	85	74	87	73	86	75	88
Lakewood	209	3	31	66	78	72	85	74	87	74	87
		5	31	69	82	76	89	73	86	75	88
Laytonsville	051	3	53	64	75	68	80	62	72	65	76
		5	53	69	82	74	87	73+	86	74	87
Luxmanor	220	3	26	67	79	75	88	73	86	74	87
		5	26	70	83	80	92	82	94	80	92

TABLE 6 (continued)

CALIFORNIA ACHIEVEMENT TESTS LONGITUDINAL RESULTS
FOR STUDENTS TESTED IN THE SAME SCHOOL IN GRADE 3 (1980) AND GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Maryvale	210	3	30	48	46	49	48	50	50	49	48
		5	30	56	61	62+	72	58	65	60+	68
Meadow Hall	412	3	18	65	76	65	76	64	75	65	76
		5	18	63	73	66	78	70	83	67	79
Mill Creek Towne	556	3	74	61	70	64	75	65	76	64	75
		5	74	60	68	64	75	62	72	63	73
Monocacy	652	3	25	59	67	62	72	57	63	60	63
		5	25	57	63	58	65	53	56	56	61
Oak View	766	3	12	55	59	55	59	63	73	59	67
		5	12	54	58	63	73	56-	61	55	59
Oakland Terrace	769	3	43	64	75	67	79	62	72	63	73
		5	43	64	75	66	78	64	75	66	78
Olney	502	3	41	60	68	65	76	64	75	64	75
		5	41	61	70	72	85	57-	63	62	72
Wm. Tyler Page	312	3	38	64	75	72	85	67	79	69	82
		5	38	68	80	75	88	75	88	75	88

TABLE 6 (continued)

CALIFORNIA ACHIEVEMENT TESTS LONGITUDINAL RESULTS
FOR STUDENTS TESTED IN THE SAME SCHOOL IN GRADE 3 (1980) AND GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Pine Crest	761	3	29	61	70	61	70	59	67	61	70
		5	29	66	78	64	75	59	67	63	73
Poolesville	153	3	59	59	67	61	70	60	68	60	68
		5	59	63	73	63	73	62	72	62	72
Potomac	601	3	47	74	87	75	88	78	91	78	91
		5	47	75	88	80	92	79	92	80	92
Ritchie Park	227	3	63	72	85	82	94	76	89	79	92
		5	63	72	85	79	92	71	84	75	88
Rock Creek Forest	773	3	20	61	70	71	84	74	87	70	83
		5	20	67	79	78	91	71	84	72	85
Rock Creek Valley	819	3	27	58	65	64	75	73	86	67	79
		5	27	66	78	85+	95	84+	95	81+	93
Rock View	795	3	29	63	73	55	59	63	73	60	68
		5	29	67	79	66+	78	60	68	63	73
Rocking Horse Road	785	3	26	60	68	66	78	55	59	59	67
		5	26	63	73	65	76	58	65	62	72

TABLE 6 (continued)

CALIFORNIA ACHIEVEMENT TESTS LONGITUDINAL RESULTS
FOR STUDENTS TESTED IN THE SAME SCHOOL IN GRADE 3 (1980) AND GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Rolling Terrace	771	3	12	61	70	70	83	65	76	65	76
		5	12	51-	52	62-	72	51-	52	54-	58
Rosemont	555	3	15	54	58	53	56	63	73	58	65
		5	15	62	72	64+	75	65	76	65	76
Seven Locks	603	3	29	70	83	78	91	80	92	79	92
		5	29	77	90	77	90	81	93	81	93
Sherwood	501	3	53	64	75	70	83	66	78	67	79
		5	53	63	73	67	79	64	75	66	78
Somerset	405	3	25	71	84	81	93	85	95	83	94
		5	25	76	89	78	91	79-	92	80	92
South Lake	564	3	32	65	76	66	78	69	82	69	82
		5	32	68	80	75	88	69	82	72	85
Stedwick	568	3	63	66	78	69	82	71	84	70	83
		5	63	70	83	77	90	77	90	77	90
Stonegate	316	3	32	68	80	74	87	70	83	71	84
		5	32	71	84	77	90	74	87	76	89

TABLE 6 (continued)

CALIFORNIA ACHIEVEMENT TESTS LONGITUDINAL RESULTS
FOR STUDENTS TESTED IN THE SAME SCHOOL IN GRADE 3 (1980) AND GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Strathmore	822	3	15	62	72	71	84	72	85	70	83
		5	15	66	78	80	92	71	84	74	87
Summit Hall	563	3	32	68	80	80	92	69	82	72	85
		5	32	65	76	73-	86	71	84	70	83
Travilah	216	3	37	66	78	67	79	65	76	67	79
		5	37	66	78	81+	93	70	83	74	87
Twinbrook	206	3	47	49	48	53	56	48	46	49	48
		5	47	58	65	59	67	62+	72	60+	68
Viers Mill	772	3	41	58	65	61	70	58	65	59	67
		5	41	62	72	70	83	62	72	64	75
Washington Grove	552	3	38	58	65	69	82	62	72	62	72
		5	38	58	65	66	78	56-	61	60	68
Watkins Mill	561	3	35	61	70	65	76	66	78	65	76
		5	35	65	76	72	85	66	78	68	80
Wayside	235	3	47	71	84	76	89	78	91	77	90
		5	47	73	86	79	92	80	92	80	92

TABLE 6 (continued)

CALIFORNIA ACHIEVEMENT TESTS LONGITUDINAL RESULTS FOR STUDENTS TESTED IN THE SAME SCHOOL IN GRADE 3 (1980) AND GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Weller Road	777	3	45	56	61	55	59	54	58	55	59
		5	45	62	72	64	75	63	73	64	75
Westbrook	408	3	29	74	87	76	89	74	87	76	89
		5	29	78	91	76	89	71	84	77	90
Westover	504	3	39	65	76	75	88	69	82	71	84
		5	39	70	83	79	92	77	90	78	91
Wheaton Woods	788	3	49	54	58	61	70	55	59	56	61
		5	49	57	63	61	70	60	68	61	70
Whetstone	558	3	47	67	79	72	85	71	84	71	84
		5	47	72	85	74	87	69	82	73	86
Wood Acres	417	3	28	77	90	75	88	79	92	80	92
		5	28	82	94	80	92	85	95	87	96
Woodfield	704	3	39	71	84	78	91	75	88	76	89
		5	39	73	86	86	96	83	94	82	94
Woodlin*	764	3	20	59	67	64	75	58	65	60	68
		5	20	67	79	76+	89	67	79	70	83

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*Students who attended Woodlin in the 3rd grade went to Woodside in the 4th grade, but returned to Woodlin in 5th grade because Woodside was closed.

TABLE 6 (continued)

CALIFORNIA ACHIEVEMENT TESTS LONGITUDINAL RESULTS
FOR STUDENTS TESTED IN THE SAME SCHOOL IN GRADE 3 (1980) AND GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Wyngate	422	3	38	78	91	72	85	71	84	75	88
		5	38	78	91	81	93	76	89	81	93

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TABLE 7

SCHOOLS WITH SUBSTANTIAL LONGITUDINAL TRENDS IN
EACH OF THE LAST FOUR YEARS - FIRST QUARTER

School	1979-80					1980-81					1981-82					1982-83				
	No.	RC	TL	TM	C	No.	RC	TL	TM	TB	No.	RC	TL	TM	TB	No.	TR	TL	TM	TB
Bannockburn	48					33					29			▨		29		▨	▨	
Barnsley	52					41		■			54			■		39				
Bethesda	35					39					40					21				
Beverly Farms	50			■		46					45					33			■	
Burning Tree	55					53					50					48				
Carderock Springs	42			▨		20					25					-				
College Gardens	45					58					67					50				
Cresthaven	49					29					27					24				
Diamond	74					80					80					72		■		
DuFief	65					66					58					57				
Fallsmead	47					51			■		52					37		■		
Farmland	50					39	▨				38					38				
Georgetown Hill	40					67					52					41				
Greenwood	85					87					84					57				
Kemp Mill	40			▨	▨	37			▨	▨	25	▨	▨	■	▨	26			■	■
Lake Normandy	60					67			■		61					45				
Lakewood	52					42					38					31				
Luxmanor	36			■		30					23					26				
Potomac	54		■		▨	78					65					47				
Ritchie Park	58					55					54					63				
Seven Locks	29					31					35					29				
Somerset	36					27			▨		34					25			■	
Summit Hall	45					49			▨		38					32		■		
Wayside	61					55					52		■		■	47				
Westbrook	42					35					31					29				
Wood Acres	46		■			38					42					28				
Woodfield	41					56					65					39				
Wyngate	44					54					59					38				

■ - School longitudinal trend was at least 8 NCE points higher than the county trend.
▨ - School longitudinal trend was at least 8 NCE points lower than the county trend.

No.- Number Tested	RC - Reading Comprehension
TL - Total Language	TR - Total Reading
C - Composite	TM - Total Math
	TB - Total Battery

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TABLE 7 (Continued)

SCHOOLS WITH SUBSTANTIAL LONGITUDINAL TRENDS IN
EACH OF THE LAST FOUR YEARS - SECOND QUARTER

School	1979-80					1980-81					1981-82					1982-83				
	No.	RC	TL	TM	C	No.	RC	TL	TM	TB	No.	RC	TL	TM	TB	No.	TR	TL	TM	TB
Belmont	73					61	■				58		■			32				
Bel Pre	34					28					27	■	■	■	■	35				
Bradley Hills	39	▨				33	▨				26					23				
Candlewood	45					70					56					39				
Cannon Road	48					57					46					35		■	■	■
Chevy Chase	56					50					46					41				
Cold Spring	91					65					58		■			39				
Connecticut Park	47					42					28					22		■		
Damascus	69					71					65					56		■		
Darnestown	55					48					44					44				
Fairland	52					61					57					36				
Highland View	34					35			▨		19					19			■	
Jackson Road	66			■		65					59					38				
William T. Page	42					35					21	■				38				
Rock Creek Forest	-					23					35					20				
Rock Creek Valley	64					56		■			43		■			27		■	■	■
Sherwood	67					53	■		■	■	59					53				
South Lake	35					46					43			▨		32				
Stedwick	69					87					66					63				
Stonegate	42					52					30					68				
Strathmore	28					32					34					15				
Travilah	38					43					40					37		■		
Westover	58					58					37					39				
Whetstone	70					65			▨		50			▨		47				

▨ - School longitudinal trend was at least 8 NCE points higher than the county trend.
■ - School longitudinal trend was at least 8 NCE points lower than the county trend.

No.- Number Tested	RC - Reading Comprehension
TL - Total Language	TR - Total Reading
C - Composite	TM - Total Math
	TB - Total Battery

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TABLE 7 (Continued)

SCHOOLS WITH SUBSTANTIAL LONGITUDINAL TRENDS IN EACH OF THE LAST FOUR YEARS - THIRD QUARTER

School	1979-80					1980-81					1981-82					1982-83				
	No.	RC	TL	TM	C	No.	RC	TL	TM	TB	No.	RC	TL	TM	TB	No.	TR	TL	TM	TB
Bells Mill	53					40					36					22				
Brookhaven	31					51		■			53					47				
Brown Station	43					50					49					56				
Burtonsville	20	▨	▨	▨	▨	22					33					18			■	
Cashell	76					66	■				65			■		52				
Cedar Grove	30					33	■	■			29					26				
Clarksburg	17					28					31					30			■	■
Cloverly	52		■	■		72					52					46				
Flower Valley	60					61					35					23				
Forest Knolls	26					21		■		■	34					17				
Fox Chapel	47		■			57					49			▨		49				
Galway	42		■	■		45					35					26			■	
Garrett Park	26					29					17					27	■	■		
Georgian Forest	40					32					28					28	■			
Germantown	47					71		▨	▨		51		▨			43		■		
Laytonsville	65					79					72					53			■	
Meadow Hall	30			▨	▨	48			▨	▨	27			▨		18				
Mill Creek Towne	63					74					60					74				
Oakland Terrace	49					50					49					43				
Olney	56					50					50		■			41			■	
Rolling Terrace	-					-					-					12	■	■	■	■
Washington Grove	43					40					35					38			■	
Watkins Mill	51					39					45		■			35				

▨ - School longitudinal trend was at least 8 NCE points higher than the county trend.
■ - School longitudinal trend was at least 8 NCE points lower than the county trend.

No.- Number Tested	RC - Reading Comprehension
TL - Total Language	TR - Total Reading
C - Composite	TM - Total Math
	TB - Total Battery

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TABLE 7 (Continued)

SCHOOLS WITH SUBSTANTIAL LONGITUDINAL TRENDS IN EACH OF THE LAST FOUR YEARS - FOURTH QUARTER

School	1979-80					1980-81					1981-82					1982-83				
	No.	RC	TL	TM	C	No.	RC	TL	TM	TB	No.	RC	TL	TM	TB	No.	TR	TL	TM	TB
Ashburton	15	▨		▨	▨	23		▨			26					35				
Beall	36					40					26					21			■	
Broad Acres	16					19		■	▨		11	■				12				
Fields Road	31					23					36					30			■	
Gaithersburg	45					50					50					40				
Glen Haven	47					39					48					30				
Glenallan	47					31					35					29				■
Harmony Hills	43			■		34					46					19				
Highland	51			■		77					65					43				
Kensington-Parkwood	18					29		■			20					22				
Maryvale	50		■			47					46					30		■		■
Monocacy	16	■				21					25					25				
Oak View	27					34			■		31					12			■	
Pine Crest	45					45					41					29				
Poolesville	71					90					70					59				
Rock View	36					34					36					29		■		
Rocking Horse Rd	39					32					29					26				
Rosemont	27					23				■	25					15		■		
Twinbrook	45					51			■		38					47			■	■
Viers Mill	41					52					39					41				
Weller Road	60					63					44					45				
Wheaton Woods	46					57					66					49				
Woodlin	-					-					-					20		■		

■ - School longitudinal trend was at least 8 NCE points higher than the county trend.
▨ - School longitudinal trend was at least 8 NCE points lower than the county trend.

No.- Number Tested
TL - Total Language
C - Composite

RC - Reading Comprehension
TR - Total Reading
TM - Total Math
TB - Total Battery

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TABLE 8

CALIFORNIA ACHIEVEMENT TESTS RESULTS FOR STUDENTS TESTED IN PAIRED SCHOOLS IN GRADE 3 (1980) AND GRADE 5 (1982)

				TOTAL READING		TOTAL LANGUAGE		TOTAL MATH		TOTAL BATTERY	
School	School No.	Grade	Number Tested	NCE MEAN	Percentile Rank of MEAN	NCE MEAN	Percentile Rank of MEAN	NCE MEAN	Percentile Rank of MEAN	NCE MEAN	Percentile Rank of MEAN
East Silver Spring	756	3	16	63	73	73	86	59	67	63	73
Piney Branch	749	5	16	66	78	71	84	64	75	67	79
Takoma Park	754	3	55	62	72	63	73	64	75	63	73
Piney Branch	749	5	55	67	79	67	79	68	80	68	80

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TABLE 9

CALIFORNIA ACHIEVEMENT TESTS RESULTS FOR STUDENTS TESTED IN GRADE 3 (1980) and GRADE 5 (1982) IN SCHOOLS THAT HAVE BEEN CONSOLIDATED

School	School No.	Grade	Number Tested	TOTAL READING NCE MEAN	TOTAL READING Percentile Rank of MEAN	TOTAL LANGUAGE NCE MEAN	TOTAL LANGUAGE Percentile Rank of MEAN	TOTAL MATH NCE MEAN	TOTAL MATH Percentile Rank of MEAN	TOTAL BATTERY NCE MEAN	TOTAL BATTERY Percentile Rank of MEAN
Hungerford Park	214	3	31	58	65	62	72	67	79	63	73
Beall	207	5	31	57	63	70	83	64	75	63	73
Four Corners	763	3	10	43	37	47	44	55	59	47	44
Forest Knolls	803	5	10	48	46	51	52	51	52	50	50
Saddlebrook	821	3	17	61	70	68	80	80	92	72	85
Glenallan	817	5	17	72	85	82	94	80	92	81	93
Arcola	790	3	10	62	72	59	67	54	58	57	63
Kemp Mill	805	5	10	67	79	72	85	66	78	70	83
Lone Oak	205	3	20	61	70	68	80	54	58	59	67
Meadow Hall	212	5	20	60	68	62	72	67	79	64	75
Four Corners	763	3	11	62	72	65	76	72	85	67	79
Oak View	766	5	11	64	75	63	73	63	73	64	75
Forest Grove	768	3	19	56	61	65	76	63	73	62	72
Oakland Terrace	769	5	19	58	65	64	75	57	63	60	68
Pleasant View	765	3	24	57	63	70	83	61	70	62	72
Rock Creek Palisades	795	5	24	64	75	60	68	58	65	61	70
Brookmont	414	3	23	74	87	74	87	80	92	79	92
Wood Acres	417	5	23	77	90	76	89	80	92	81	93

Nonlongitudinal Trends

Trends of scores between groups of students tested in a school only once (Grade 3 or Grade 5) are reported in Table 10. These nonlongitudinal data are analyzed in a way similar to the school longitudinal data. The county trend for students tested in a school only once (shown in Table 5) is used as a baseline against which to evaluate the magnitude of the school trend. Any school with a trend substantially above (+) or below (-) the county trend is probably an indication of a population shift in the school. If either group in a school has fewer than 10 students, no results are reported for that school.

Part of the nonlongitudinal groups are students in consolidated schools whose third grade school is closed. These students are also included in Table 9 which shows results for them alone, not mixed with other new fifth graders as is done in these nonlongitudinal tables.

Table 11 contains a summary of four years of school nonlongitudinal analysis. This table has the same format as Table 7. Schools are grouped into quarters according to their 1982-83 group Grade 3 nonlongitudinal score. If the school did not have any 1982-83 data, it was placed in the same quarter as last year. No data are presented for a school in a year if there were fewer than 10 students in the third and/or fifth grade group.

TABLE 10

CALIFORNIA ACHIEVEMENT TESTS NONLONGITUDINAL RESULTS FOR STUDENTS TESTED IN A SCHOOL ONLY IN GRADE 3 (1980) OR GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Ashburton	425	3	24	61	70	60	68	58	65	57	63
		5	23	54-	58	53-	56	61	70	56	61
Lucy Barnsley	505	3	15	60	68	38	28	59	67	39	30
		5	19	66	78	73+	86	75+	88	73+	86
Beall	207	3	16	33	21	36	25	34	22	31	18
		5	70	53+	56	63+	73	61+	70	59+	67
Bel Pre	780	3	15	42	35	50	50	50	50	46	42
		5	26	63+	73	75+	88	72+	85	71+	84
Bethesda	401	3	14	63	73	70	83	66	78	67	79
		5	30	62	72	63-	73	60-	68	62-	72
Bradley Hills	410	3	14	62	72	67	79	65	76	64	75
		5	14	65	76	73	86	67	79	68	80
Broad Acres	304	3	13	43	37	47	44	47	44	45	41
		5	31	46	42	55	59	58	65	52	54
Brookhaven	807	3	10	57	63	58	65	56	61	56	61
		5	13	68+	80	71+	84	68+	80	71+	84
Brown Station	559	3	39	50	50	53	56	50	50	50	50
		5	43	57	63	61	70	60	68	60	68
Burning Tree	419	3	12	73	86	83	94	81	93	80	92
		5	34	81	93	82	94	86	96	87	96

TABLE 10 (continued)

CALIFORNIA ACHIEVEMENT TESTS NONLONGITUDINAL RESULTS FOR STUDENTS TESTED IN A SCHOOL ONLY IN GRADE 3 (1980) OR GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Candlewood	508	3	23	53	56	58	65	60	68	57	63
		5	29	55	59	59	67	56-	61	57	63
Carderock Springs	604	3	13	69	82	11	3	88	96	13	4
		5	12	65	76	78+	91	70-	83	71+	84
Cashell	511	3	19	59	67	59	67	58	65	59	67
		5	23	64	75	70+	83	65	76	67	79
Chevy Chase	403	3	29	52	54	55	59	63	73	58	65
		5	31	68+	80	70+	83	69	82	70+	83
College Gardens	229	3	18	62	72	64	75	64	75	64	75
		5	18	64	75	69	82	67	79	66	78
Connecticut Park	779	3	12	66	78	80	92	58	65	65	76
		5	10	59-	67	61-	70	65	76	62	72
Damascus	702	3	20	53	56	65	76	56	61	56	61
		5	15	65+	76	71	84	68+	80	71+	84
Diamond	570	3	16	61	70	65	76	59	67	59	67
		5	23	62	72	57-	63	60	68	60	68
Dufief	241	3	23	61	70	58	65	63	73	63	73
		5	16	63	73	66	78	60	68	65	76
Fairland	303	3	16	55	59	58	65	56	61	56	61
		5	28	59	67	60	68	56	61	59	67

TABLE 10 (continued)

CALIFORNIA ACHIEVEMENT TESTS NONLONGITUDINAL RESULTS FOR STUDENTS TESTED IN A SCHOOL ONLY IN GRADE 3 (1980) OR GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Fallsmead	233	3	10	70	83	75	88	78	91	77	90
		5	12	59-	67	75	88	69-	82	68-	80
Fields Road	566	3	20	45	41	56	61	48	46	46	42
		5	18	58+	65	63	73	64+	75	62+	72
Forest Knolls	803	3	11	44	39	52	54	40	32	41	33
		5	21	54	58	58	65	57+	63	54+	61
Fox Chapel	106	3	20	54	58	65	76	60	68	58	65
		5	33	60	68	65	76	65	76	64	75
Gaithersburg	553	3	46	55	59	51	52	55	59	54	58
		5	25	58	65	60	68	68	65	60	68
Garrett Park	204	3	12	57	63	55	59	54	58	55	59
		5	18	62	72	67+	79	63	73	64	75
Georgian Forest	786	3	15	48	46	54	58	59	67	54	58
		5	21	59+	67	60	68	62	72	61	70
Germantown	102	3	22	60	68	66	78	61	70	61	70
		5	21	49-	48	53-	56	54-	58	52-	54
Glen Haven	767	3	33	51	52	54	58	53	56	52	54
		5	32	56	61	57	63	53	56	55	59
Glenallan	817	3	18	49	48	56	61	54	58	52	54
		5	40	62+	72	74+	87	72+	85	71+	84

TABLE 10 (continued)

CALIFORNIA ACHIEVEMENT TESTS NONLONGITUDINAL RESULTS FOR STUDENTS TESTED IN A SCHOOL ONLY IN GRADE 3 (1980) OR GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Greenwood	512	3	19	64	75	72	85	60	68	64	75
		5	15	61	70	77	90	69	82	70	83
Harmony Hills	797	3	23	35	24	48	46	42	35	36	25
		5	19	50+	50	56	61	56+	61	54+	58
Highland	774	3	25	50	50	52	54	44	39	47	44
		5	26	50	50	52	54	52	54	51	52
Highland View	784	3	11	53	56	54	58	53	56	52	54
		5	45	47-	44	47-	44	46-	42	46-	42
Jackson Road	305	3	16	58	65	62	72	56	61	58	65
		5	24	65	76	64	75	66	78	66	78
Kensington-Parkwood	783	3	20	50	50	52	54	52	54	51	52
		5	27	62+	72	64+	75	66+	78	65+	76
Lake Normandy	231	3	12	76	89	74	87	78	91	80	92
		5	12	71-	84	80	92	68-	80	74-	87
Laytonsville	051	3	26	61	70	64	75	56	61	60	68
		5	18	59	67	64	75	63	73	63	73
Maryvale	210	3	15	35	24	37	27	41	33	37	27
		5	14	36	25	43	37	48	46	42	35
Meadow Hall	212	3	23	62	72	65	76	62	72	63	73
		5	29	59	67	59-	67	65	76	62	72

TABLE 10 (continued)

CALIFORNIA ACHIEVEMENT TESTS NONLONGITUDINAL RESULTS FOR STUDENTS TESTED IN A SCHOOL ONLY IN GRADE 3 (1980) OR GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Mill Creek Towne	556	3	19	61	70	52	54	52	54	53	56
		5	31	50-	50	50	50	47-	44	49-	48
Oak View	766	3	15	47	44	52	54	48	46	48	46
		5	23	57	63	57	63	55	59	57	63
Oakland Terrace	769	3	15	58	65	59	67	57	63	56	61
		5	37	57	63	62	72	55	59	57	63
Olney	502	3	15	58	65	65	76	65	76	65	76
		5	10	57	63	66	78	57-	63	63	73
Pine Crest	761	3	20	54	58	58	65	52	54	54	58
		5	19	48-	46	54-	58	55	59	53	56
Poolesville	153	3	20	56	61	57	63	55	59	52	54
		5	13	57	63	54	58	49-	48	53	56
Potomac	601	3	18	74	87	74	87	82	94	80	92
		5	23	71	84	77	90	68-	80	73-	86
Ritchie Park	227	3	11	69	82	76	89	78	91	78	91
		5	16	67	79	72-	85	73-	86	73-	86
Rock Creek Forest	773	3	14	53	56	64	75	67	79	62	72
		5	15	64+	75	67	79	58-	65	62	72
Rock Creek Valley	819	3	11	58	65	58	65	65	76	61	70
		5	20	61	70	74+	87	66	78	67	79

TABLE 10 (continued)

CALIFORNIA ACHIEVEMENT TESTS NONLONGITUDINAL RESULTS FOR STUDENTS TESTED IN A SCHOOL ONLY IN GRADE 3 (1980) OR GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Rock View	795	3	16	58	65	56	61	58	65	58	65
		5	36	59	67	59	67	57	63	59	67
Rocking Horse	785	3	18	58	65	65	76	52	54	57	63
		5	11	50-	50	53-	56	60	68	55	59
Rolling Terrace	771	3	15	54	58	60	68	59	67	57	63
		5	25	38-	28	49-	48	52-	54	47-	44
Rosemont	555	3	13	38	28	43	37	41	33	32	40
		5	12	64+	75	64+	75	63+	73	63+	73
South Lake	564	3	29	57	63	56	61	63	73	60	68
		5	39	59	67	60	68	57-	63	59	67
Stedwick	568	3	25	58	65	59	67	57	63	59	67
		5	21	63	73	68	80	66	78	66	78
Stonegate	316	3	10	64	75	66	78	57	63	63	73
		5	13	67	79	73	86	72+	85	71	84
Strathmore	822	3	23	57	63	61	70	61	70	61	70
		5	15	55	59	56-	61	47-	44	53-	56
Summit Hall	563	3	17	49	48	59	67	52	54	51	52
		5	14	51	52	52-	54	58	65	54	58
Twinbrook	206	3	29	50	50	49	48	40	32	45	41
		5	35	56	61	65+	76	62+	72	61+	70

TABLE 10 (continued)

CALIFORNIA ACHIEVEMENT TESTS NONLONGITUDINAL RESULTS FOR STUDENTS TESTED IN A SCHOOL ONLY IN GRADE 3 (1980) OR GRADE 5 (1982)

				Total Reading		Total Language		Total Math		Total Battery	
School	School Number	Grade	# Tested	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean	NCE Mean	Percentile Rank of Mean
Washington Grove	552	3	24	44	39	58	65	45	41	45	41
		5	21	55+	59	59	67	48	46	55	59
Watkins Mill	561	3	18	49	48	57	63	58	65	55	59
		5	21	66+	78	69+	82	64	75	67+	79
Weller Road	777	3	21	47	44	49	48	52	54	49	48
		5	24	49	48	64+	75	64+	75	58	65
Westover	504	3	17	63	73	65	76	58	65	62	72
		5	16	63	73	64	75	68	80	68	80
Wheaton Woods	788	3	10	59	67	66	78	62	72	62	72
		5	17	54-	58	55-	59	62	72	57-	63
Whetstone	558	3	29	55	59	60	68	56	61	54	58
		5	26	63	73	65	76	63	73	64	75
Woodlin	764	3	43	47	44	50	50	45	41	46	42
		5	12	58+	65	62+	72	56	61	59+	67
Wyngate	422	3	11	71	84	68	80	68	80	69	82
		5	24	66-	78	70	83	66	78	68	80

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TABLE 11

SCHOOLS WITH SUBSTANTIAL NONLONGITUDINAL TRENDS IN EACH OF THE LAST FOUR YEARS - FIRST QUARTER

School	1979-80					1980-81					1981-82					1982-83				
	No.	RC	TL	TM	C	No.	RC	TL	TM	TB	No.	RC	TL	TM	TB	No.	TR	TL	TM	TB
Bannockburn	13/14	█		█	█	14/13	█		█		11/10		█	█		-				
Bells Mill	11/14		█	█		-					-					-				
Bethesda	14/18	█	█		█	-					-					14/30		█	█	█
Beverly Farms	11/26					14/11	▒		█	▒	15/14					-				
Bradley Hills	13/12					-					-					14/14				
Burning Tree	13/39					-					10/44					12/34				
Cloverly	14/11	█			█	15/13	█			█	-					-				
Cold Spring	23/17					17/14		█			13/15					-				
College Gardens	19/53		▒			33/25					25/22			▒		18/18				
Connecticut Park	13/14	▒	▒	▒	▒	23/13	▒	▒	▒	▒	-					12/10	▒	█		
Cresthaven	-					-					-					-				
Darnestown	12/32	█	█	█	█	-					-					-				
DuFief	10/23					-					27/16					23/16				
Fallsmead	16/18	█	█	█	█	20/11	█	█	█	█	11/13			█	█	10/12	█		█	█
Farmland	-					-					-					-				
Flower Valley	23/19					15/13	▒				12/55		█	█		-				
Greenwood	15/15	█	█	█	█	23/18					16/13			█		19/15				
Kemp Mill	-					-					-					-				
Lake Normandy	13/20					16/18					-					12/12	█		█	█
Meadow Hall	19/18					17/17					21/15	█	█	█	█	23/29		█		
Olney	21/15	█	█		█	-					17/13	█				15/10			█	
Page	16/11	█				-					-					-				
Potomac	12/25					15/24					10/17					18/23			█	█
Ritchie Park	22/16			█		-					13/12	█				11/16		█	█	█
Rock Creek Forest	-					-					11/11					14/15	█		█	
Somerset	17/35					16/24					-					-				
Stonegate	-					-					-					10/13			█	
Westbrook	10/11					-					-					-				
Westover	-					12/16	█	█	█	█	10/10		▒			17/16				
Wheaton Woods	23/30					14/19	█		█	█	12/12	█	█		█	10/17	█	█		█
Wyngate	16/27		▒			-					14/14	▒			█	11/24	█			

█ - School nonlongitudinal trend was at least 8 NCE points higher than the county trend
▒ - School nonlongitudinal trend was at least 8 NCE points lower than the county trend

No.- Number Tested, Grade 3/Grade 5
TL - Total Language
C - Composite

RC - Reading Comprehension
TR - Total Reading
TM - Total Math
TB - Total Battery

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TABLE 11 (Continued)

SCHOOLS WITH SUBSTANTIAL NONLONGITUDINAL TRENDS IN EACH OF THE LAST FOUR YEARS - SECOND QUARTER

School	1979-80					1980-81					1981-82					1982-83				
	No.	RC	TL	TM	C	No.	RC	TL	TM	TB	No.	RC	TL	TM	TB	No.	TR	TL	TM	TB
Ashburton	11/23	▨	▨	■	■	-					13/32	▨	▨	▨	▨	24/23	▨	▨		
Belmont	26/13					11/11	■		■	■	16/10		■			-				
Candlewood	19/21	▨	▨	▨	▨	22/15			▨		18/15					23/29			▨	
Cashell	16/15		■		▨	-					11/24	■	■	■	■	19/23		■		
Chevy Chase	35/31					18/29					16/26	▨				29/31	■	■		■
Diamond	21/23		■			23/23	▨	▨	▨	▨	24/13					16/23		■		
Fox Chapel	32/23		■	■		23/18	■				21/28					20/33				
Galway	-					-					-					-				
Georgetown Hill	18/42			■	■	18/19					27/14					-				
Germantown	21/32	■	■	■	■	19/16		▨			26/23					22/21	■	■	■	■
Jackson Road	37/29	■	■	■	■	16/27					31/24	▨	▨	▨	▨	16/24				
Laytonsville	41/40	■			■	16/22					-					26/18				
Luxmanor	-					-					-					-				
Rock Creek Valley	28/17		■			11/18	■			■	12/16					56/61		■		
Rock View	15/15		■	■	■	18/15					10/11	▨	▨	▨	▨	16/36				
Rocking Horse Rd	25/10			▨		17/12					25/14		■			18/11	▨	▨		
Rolling Terrace	-					-					-					15/25	■	■	■	■
South Lake	58/35				▨	36/31					29/20			▨		29/39			■	
Stedwick	26/37					28/33					13/36					25/21				
Strathmore	18/23					20/23	▨	▨	▨	▨	24/12					23/15		■	■	■
Travilah	-					-					16/13					-				
Viers Mill	20/22					15/12	■	■	■	■	10/11	■		■	■	-				
Wayside	20/17	▨		▨		16/14	▨			▨	10/10		■	■	■	-				

▨ - School nonlongitudinal trend was at least 8 NCE points higher than the county trend
■ - School nonlongitudinal trend was at least 8 NCE points lower than the county trend

No.- Number Tested, Grade 3/Grade 5	RC - Reading Comprehension
TL - Total Language	TR - Total Reading
C - Composite	TM - Total Math
	TB - Total Battery

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TABLE 11 (Continued)

SCHOOLS WITH SUBSTANTIAL NONLONGITUDINAL TRENDS IN EACH OF THE LAST FOUR YEARS - THIRD QUARTER

	1979-80					1980-81					1981-82					1982-83				
School	No.	RC	TL	TM	C	No.	RC	TL	TM	TB	No.	RC	TL	TM	TB	No.	TR	TL	TM	TB
Brookhaven	19/12	■	■	■	■	20/23					-					10/13	■	■	■	■
Cannon Road	11/21		■			11/19	▨	▨	▨	▨	-					-				
Cedar Grove	24/15	■	■	■	■	-					-					-				
Damascus	16/23		■			14/16	▨	▨	▨	▨	-					20/15	■		■	■
Fairland	17/26			■		19/25	▨				15/27	▨	▨	▨		16/28				
Gaithersburg	57/27	■		■	■	35/42		■			40/32		■		■	46/25			■	
Garrett Park	-					-					13/10			■	■	12/18		■		
Georgian Forest	13/23					-					16/27	▨				15/21	■			
Glen Haven	17/30					19/20	■		■	■	26/19	▨	▨	■	▨	33/32				
Glenallan	26/16					25/13			▨	▨	19/12		▨			18/40	■	■	■	■
Highland View	19/19	■	■	■	■	11/37			▨	▨	-					11/45	■	■	■	■
Kensington-Parkwood	-					13/17					12/22			■		20/27	■	■	■	■
Lakewood	10/11	■	■	■	■	12/15	■			■	12/10	■				-				
Mill Creek Towne	22/38					19/17	▨	▨	▨	▨	12/12	▨	▨			19/31	▨		■	▨
Oakland Terrace	22/17	■	■	■	■	25/15			▨		13/12	▨	▨	▨	▨	15/37				
Pine Crest	25/30				▨	18/22			▨		18/17	▨	■	■	■	20/19	▨	▨		
Poolesville	30/22					17/12	▨	▨	▨	▨	20/11	■		■	■	20/13			■	
Seven Locks	14/17	▨	▨	▨	▨	-					-					-				
Summit Hall	25/22		■			24/23		▨			34/18					17/14		■		
Watkins Mill	34/40					30/29					20/21		■			18/21	■	■		■
Whetstone	14/29	■	▨	■	■	26/35	■		■	■	24/33	▨	▨	■	■	29/26				
Wood Acres	18/21	■				18/17					15/12	■		■	■	-				
Woodfield	-					-					-					-				

■ - School nonlongitudinal trend was at least 8 NCE points higher than the county trend
▨ - School nonlongitudinal trend was at least 8 NCE points lower than the county trend

No.- Number Tested, Grade 3/Grade 5	RC - Reading Comprehension
TL - Total Language	TR - Total Reading
C - Composite	TM - Total Math
	TB - Total Battery

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TABLE 11 (Continued)

SCHOOLS WITH SUBSTANTIAL NONLONGITUDINAL TRENDS IN EACH OF THE LAST FOUR YEARS - FOURTH QUARTER

	1979-80					1980-81					1981-82					1982-83				
School	No.	RC	TL	TM	C	No.	RC	TL	TM	TB	No.	RC	TL	TM	TB	No.	TR	TL	TM	TB
Barnsley	-					11/36	■	■	■	■	12/31	■	■	■	■	15/19		■	■	■
Beall	-					16/13	■		■	■	12/14	■			■	16/70	■	■	■	■
Bel Pre	-					11/13					-					15/26	■	■	■	■
Broad Acres	16/12	■	■		■	12/14		■		■	13/17	■	■	■	■	13/31				
Brown Station	43/36	■	■	■	■	37/36					43/27		■	■	■	39/43				
Burtonsville	-					-					-					-				
Carderock Springs	-					13/13	▨		▨		11/16	▨	▨	▨	▨	13/12		■	■	■
Clarksburg	12/34					-					-					-				
Fields Road	23/15	▨	▨	▨	▨	23/24	■		■	■	30/13	■			■	20/18	■		■	■
Forest Knolls	-					11/16	■			■	-					11/21			■	■
Harmony Hills	35/22			▨		29/24		■	■	■	19/21		■			23/19	■		■	■
Highland	25/30					41/22	■	■	■	■	29/21	▨	▨	▨	▨	25/26				
Maryvale	28/18					13/10			■	■	14/10	▨	▨			15/14				
Monocacy	-					-					-					-				
Oak View	20/16					11/50		■	■	■	14/52	■	■		■	15/23				
Rosemont	-					13/20		■			14/15		■			13/12	■	■	■	■
Sherwood	25/25		■	■	■	20/21	■	■	■	■	10/18	■			■	-				
Twinbrook	25/12	■		■	■	23/17		■	■	■	24/19	▨				29/35		■	■	■
Washington Grove	48/30					26/16					-					24/21	■			
Weller Road	25/27	■		■		16/29					25/13	■		■	■	21/24		■	■	
Woodlin	-					-					-					43/12	■	■		■

■ - School nonlongitudinal trend was at least 8 NCE points higher than the county trend.
▨ - School nonlongitudinal trend was at least 8 NCE points lower than the county trend.

No.- Number Tested, Grade 3/Grade 5
TL - Total Language
C - Composite

RC - Reading Comprehension
TR - Total Reading
TM - Total Math
TB - Total Battery

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Percentage of Students Tested

As indicated in the section dealing with countywide racial/ethnic group results, some students can be exempted from testing if the testing would result in invalid scores. In that section the ESOL exemption criteria were cited. Another group that can be exempted are handicapped students receiving or recommended to receive special education services. If a school has a large group of students who qualify for exemption, the school data reported in previous sections may not present a totally accurate picture of the overall achievement level in the school.

Table 12 presents information that can be used to determine the extent of exemptions in each school. Shown in that table are the official September 30 enrollment, the number of students who took all subtests and the percentage of the official enrollment who took all subtests.

A few precautions should be kept in mind when reviewing these data. The enrollment figures were computed about 3 weeks before testing began. Thus, it may not represent the exact enrollment at the time of testing. This is why some schools have more than 100 percent tested. This difference in dates could also mean that schools which are shown with slightly less than 100 percent tested did test all students who were in school at testing time. Also note that to be counted as taking the test a student had to take all subtests. In a few cases students took some subtests but were unable to complete the entire battery. Schools where this represented at least 10 percent of the students were Kemp Mill in Grade 3, Harmony Hills in Grade 5, and Wheaton and Seneca Valley in Grade 11.

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TABLE 12

NUMBER AND PERCENTAGE OF STUDENTS WHO TOOK THE ENTIRE CALIFORNIA ACHIEVEMENT TESTS, FALL 1982 BY SCHOOL

Grade 3

School	September 30, 1982 Enrollment	Number Taking Entire Test Between 10/18/83 and 11/19/83	Percentage of 9/30/83 Enrollment Taking Entire Test
Ashburton	56	39	70*
Bannockburn	48	45	94
Barnsley	61	58	95
Beall	88	84	95
Bells Mill	30	30	100
Belmont	45	44	98
Bel Pre	46	44	96
Bethesda	64	58	91
Beverly Farms	59	60	101
Bradley Hills	47	46	98
Broad Acres	36	34	94
Brookhaven	34	34	100
Brown Station	82	83	101
Burning Tree	49	43	88
Burtonsville	19	17	89
Candlewood	47	47	100
Cannon Road	50	48	96
Carderock Springs	26	25	96
Cashell	52	51	98
Cedar Grove	39	39	100
Chevy Chase	77	70	91
Clarksburg	48	48	100
Cloverly	50	48	96
Cold Spring	47	47	100
College Gardens	52	49	94
Connecticut Park	28	26	93
Cresthaven	49	46	94
Damascus	58	56	97
Darnestown	49	50	102
Diamond	79	77	97
DuFief	70	70	100
E. Silver Spring	55	56	102
Fairland	67	66	99
Fallsmead	45	41	91
Farmland	77	67	87
Fields Road	56	50	89
Flower Valley	45	46	102
Forest Knolls	33	30	91
Fox Chapel	84	81	96

*School has large ESOL and/or special education population in Grade 3.

TABLE 12 (continued)

NUMBER AND PERCENTAGE OF STUDENTS WHO TOOK THE
ENTIRE CALIFORNIA ACHIEVEMENT TESTS, FALL 1982
BY SCHOOL

Grade 3

School	September 30, 1982 Enrollment	Number Taking Entire Test Between 10/18/83 and 11/19/83	Percentage of 9/30/83 Enrollment Taking Entire Test
Gaithersburg	64	62	97
Galway	37	37	100
Garrett Park	50	41	82
Georgetown Hill	40	36	90
Georgian Forest	37	32	86
Germantown	72	71	99
Glen Haven	41	40	98
Glenallan	50	49	98
Greenwood	98	96	98
Harmony Hills	48	46	96
Highland	61	60	98
Highland View	48	42	88
Jackson Road	50	47	94
Kemp Mill	63	53	84*
Kensington-Parkwood	38	36	95
Lake Normandy	38	36	95
Lakewood	46	44	96
Laytonsville	68	67	99
Luxmanor	46	45	98
Maryvale	30	28	93
Meadow Hall	51	47	92
Mill Creek Towne	91	88	97
Monocacy	21	21	100
New Hampshire Estates	37	33	89
Oak View	58	52	90
Oakland Terrace	67	66	99
Olney	53	52	98
William T. Page	63	61	97
Pine Crest	66	55	83*
Poolesville	95	95	100
Potomac	39	35	90
Ritchie Park	76	74	97
Rock Creek Forest	43	43	100
Rock Creek Valley	33	33	100
Rock View	58	56	97
Rocking Horse Rd	25	24	96
Rolling Terrace	58	51	88
Rosemary Hills	59	47	80*

*School has large ESOL and/or special education population in Grade 3. At Kemp Mill 14 percent more of the students took part of the test.

TABLE 12 (continued)

NUMBER AND PERCENTAGE OF STUDENTS WHO TOOK THE ENTIRE CALIFORNIA ACHIEVEMENT TESTS, FALL 1982 BY SCHOOL

Grade 3

School	September 30, 1982 Enrollment	Number Taking Entire Test Between 10/18/83 and 11/19/83	Percentage of 9/30/83 Enrollment Taking Entire Test
Rosemont	36	32	89
Seven Locks	23	20	87
Sherwood	49	49	100
Somerset	31	30	97
South Lake	71	72	101
Stedwick	93	92	99
Stonegate	41	41	100
Strathmore	33	35	106
Summit Hall	47	47	100
Takoma Park	98	94	96
Travilah	54	53	98
Twinbrook	102	101	99
Viers Mill	46	46	100
Washington Grove	81	72	89
Watkins Mill	62	57	92
Wayside	52	52	100
Weller Road	67	64	96
Westbrook	38	36	95
Westover	48	42	88
Wheaton Woods	54	50	93
Whetstone	82	81	99
Wood Acres	65	59	91
Woodfield	54	53	98
Woodlin	50	35	70*
Wyngate	87	81	93

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*School has large ESOL and/or special education population in Grade 3.

TABLE 12 (continued)

NUMBER AND PERCENTAGE OF STUDENTS WHO TOOK THE ENTIRE CALIFORNIA ACHIEVEMENT TESTS, FALL 1982 BY SCHOOL

Grade 5

School	September 30, 1982 Enrollment	Number Taking Entire Test Between 10/18/83 and 11/19/83	Percentage of 9/30/83 Enrollment Taking Entire Test
Ashburton	68	58	85
Bannockburn	48	45	94
Barnsley	78	75	96
Beall	92	91	99
Bells Mill	37	34	92
Belmont	39	38	97
Bel Pre	63	61	97
Bethesda	54	51	94
Beverly Farms	42	41	98
Bradley Hills	47	37	79
Broad Acres	50	44	88
Brookhaven	63	60	95
Brown Station	101	99	98
Burning Tree	86	82	95
Burtonsville	31	29	94
Candlewood	71	68	96
Cannon Road	42	43	102
Carderock Springs	37	36	97
Cashell	75	75	100
Cedar Grove	35	34	97
Chevy Chase	82	73	89
Clarksburg	57	52	91
Cloverly	61	62	102
Cold Spring	50	47	94
College Gardens	73	68	93
Connecticut Park	31	32	103
Cresthaven	55	51	93
Damascus	71	71	100
Darnestown	69	68	99
Diamond	96	95	99
DuFief	71	73	103
Fairland	62	64	103
Fallsmead	48	49	102
Farmland	74	66	89
Fields Road	58	48	83
Flower Valley	56	59	105
Forest Knolls	41	39	95
Fox Chapel	81	83	102

TABLE 12 (continued)

NUMBER AND PERCENTAGE OF STUDENTS WHO TOOK THE ENTIRE CALIFORNIA ACHIEVEMENT TESTS, FALL 1982 BY SCHOOL

Grade 5

School	September 30, 1982 Enrollment	Number Taking Entire Test Between 10/18/83 and 11/19/83	Percentage of 9/30/83 Enrollment Taking Entire Test
Gaithersburg	70	65	93
Galway	38	35	92
Garrett Park	45	45	100
Georgetown Hill	54	52	96
Georgian Forest	52	49	94
Germantown	64	64	100
Glen Haven	64	62	97
Glenallan	74	69	93
Greenwood	82	82*	100
Harmony Hills	52	38	73**
Highland	72	69	96
Highland View	66	64	97
Jackson Road	71	62	87
Kemp Mill	72	65	90
Kensington-Parkwood	50	49	98
Lake Normandy	58	57	98
Lakewood	42	41	98
Laytonsville	74	73	99
Luxmanor	47	46	98
Maryvale	48	45	94
Meadow Hall	52	47	90
Mill Creek Towne	104	105	101
Monocacy	30	32	107
Oak View	43	35	81
Oakland Terrace	81	80	99
Olney	52	51	98
William T. Page	55	53	96
Pine Crest	56	46	86
Piney Branch	142	132	93
Poolesville	74	72	97
Potomac	73	70	96
Ritchie Park	80	79	99
Rock Creek Forest	36	35	97
Rock Creek Valley	47	47	100
Rock View	81	65	80

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*Ten of these students were not included in the results for Greenwood because their answer sheets were lost. They were later retested using the other form of the test. Since they took a different test form at a different time of the year, their scores could not be included.

**Another 15 percent took part of the test.

TABLE 12 (continued)

NUMBER AND PERCENTAGE OF STUDENTS WHO TOOK THE ENTIRE CALIFORNIA ACHIEVEMENT TESTS, FALL 1982 BY SCHOOL

Grade 5

School	September 30, 1982 Enrollment	Number Taking Entire Test Between 10/18/83 and 11/19/83	Percentage of 9/30/83 Enrollment Taking Entire Test
Rocking Horse Rd	36	37	103
Rolling Terrace	44	37	84
Rosemary Hills	65	59	91
Rosemont	30	27	90
Seven Locks	38	36	95
Sherwood	62	62	100
Somerset	45	41	91
South Lake	74	72	97
Stedwick	88	84	95
Stonegate	43	45	105
Strathmore	35	30	86
Summit Hall	50	46	92
Travilah	46	43	93
Twinbrook	88	82	93
Viers Mill	52	47	90
Washington Grove	63	61	97
Watkins Mill	55	56	102
Wayside	57	56	98
Weller Road	76	69	91
Westbrook	34	33	97
Westover	57	55	96
Wheaton Woods	72	66	92
Whetstone	82	76	93
Wood Acres	78	72	92
Woodfield	60	63	105
Woodlin	46	32	70*
Wyngate	67	62	93

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*School has a large ESOL and special education program in Grade 5.

TABLE 12 (continued)

NUMBER AND PERCENTAGE OF STUDENTS WHO TOOK THE ENTIRE CALIFORNIA ACHIEVEMENT TESTS, FALL 1982 BY SCHOOL

Grade 8

School	September 30, 1982 Enrollment	Number Taking Entire Test Between 10/18/83 and 11/19/83	Percentage of 9/30/83 Enrollment Taking Entire Test
Baker	286	287	100
Banneker	289	285	99
Belt	313	298	95
Cabin John	252	242	96
Eastern	194	179	92
Farquhar	354	343	97
Frost	424	420	99
Gaithersburg	361	343	95
Hoover	288	283	98
Key	260	245	94
King	222	215	97
Lee	402	398	99
Montgomery Village	302	285	94
Parkland	206	207	100
Poolesville	114	113	99
Pyle	479	475	99
Redland	289	290	100
Ridgeview	333	328	98
Sligo	433	408	94
Takoma Park	179	148	83*
Tilden	457	449	98
Julius West	270	262	97
Westland	375	366	98
White Oak	297	297	100
Wood	424	421	99

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*School has a large special education population in Grade 8.

TABLE 12 (continued)

NUMBER AND PERCENTAGE OF STUDENTS WHO TOOK THE ENTIRE CALIFORNIA ACHIEVEMENT TESTS, FALL 1982 BY SCHOOL

Grade 11

School	September 30, 1982 Enrollment	Number Taking Entire Test Between 12/1/83 and 12/21/83	Percentage of 9/30/83 Enrollment Taking Entire Test
Bethesda-Chevy Chase	461	396	86
Montgomery Blair	525	403	77*
Churchill	566	490	87
Damascus	272	247	91
Einstein	259	228	88
Gaithersburg	431	369	86
Walter Johnson	251	233	93
Kennedy	368	327	89
Magruder	300	270	90
Richard Montgomery	327	300	92
Northwood	317	294	93
Paint Branch	316	296	94
Peary	309	299	97
Poolesville	103	94	91
Rockville	391	340	87
Seneca Valley	580	482	83**
Sherwood	324	271	84
Springbrook	497	467	94
Wheaton	329	255	78**
Whitman	484	471	97
Woodward	236	220	93
Wootton	428	385	90

*School has a large ESOL population in Grade 11.

**At least 10 percent more of the students took part of the test.

APPENDIX A

DATA TABLES

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Table A1

NUMBER (N) AND PERCENTAGE (%) OF MCPS STUDENTS SCORING AT OR ABOVE THE NATIONAL NORM AVERAGE (50TH PERCENTILE) ON THE CALIFORNIA ACHIEVEMENT TESTS, FALL 1982

	Grade							
	3		5		8		11	
	N	%	N	%	N	%	N	%
TOTAL BATTERY	4117	78	4597	80	5988	79	5339	75
TOTAL READING	4003	76	4497	78	6034	79	5506	74
TOTAL LANGUAGE	4266	81	4731	82	5945	78	5448	74
TOTAL MATH	4201	80	4579	80	6162	81	5524	76

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Table A2

MCPS RESULTS ON THE CALIFORNIA ACHIEVEMENT TESTS
1980-1982

(Scores reported are Normal Curve Equivalent (NCE) means,
Scale Score (SS) means and the Percentile Rank (Percentile Rank)
of the Scale Score means.)

		TOTAL BATTERY			Phonic Analysis			Structural Analysis			Reading Vocabulary			Reading Comprehension			TOTAL READING			Spelling		
Grade/Year	No. Tested	NCE Mean	SS Mean	Per. Rank	NCE Mean	SS Mean	Per. Rank	NCE Mean	SS Mean	Per. Rank	NCE Mean	SS Mean	Per. Rank	NCE Mean	SS Mean	Per. Rank	NCE Mean	SS Mean	Per. Rank	NCE Mean	SS Mean	Per. Rank
3 - 1982	5247	67	408	81	57	404	65	63	416	74	62	419	72	63	435	72	63	414	74	61	459	70
1981	5197	65	405	79	57	403	64	62	413	73	62	419	72	62	433	71	62	411	72	60	458	69
1980	5616	64	403	77	56	401	63	61	410	71	61	417	71	61	431	70	61	409	71	60	453	69
5 - 1982	5724	68	495	81	-	-	-	-	-	-	64	499	76	64	516	75	64	502	77	61	541	71
1981	6524	67	493	80	-	-	-	-	-	-	64	499	76	64	515	75	64	502	77	60	538	70
1980	7214	67	492	79	-	-	-	-	-	-	64	499	76	63	514	74	64	502	77	60	537	69
8 - 1982	7587	67	600	79	-	-	-	-	-	-	64	590	76	65	604	76	65	598	77	59	603	66
1981	7234	66	599	79	-	-	-	-	-	-	64	591	76	65	604	76	65	599	78	58	601	66
1980	7314	65	596	78	-	-	-	-	-	-	64	588	75	64	601	75	65	596	76	57	598	64
11 - 1982	7142	64	675	76	-	-	-	-	-	-	62	669	72	62	664	72	63	669	73	58	653	65
1981	7350	64	674	75	-	-	-	-	-	-	62	667	71	62	664	72	63	668	73	57	651	64
1980	7951	63	671	74	-	-	-	-	-	-	61	666	71	62	662	71	62	666	72	57	651	64

		Language Mechanics			Language Expression			TOTAL LANGUAGE			Math Computation			Math Concepts & Applications			TOTAL MATH			Reference Skills		
Grade/Year	No. Tested	NCE Mean	SS Mean	Per. Rank	NCE Mean	SS Mean	Per. Rank	NCE Mean	SS Mean	Per. Rank	NCE Mean	SS Mean	Per. Rank	NCE Mean	SS Mean	Per. Rank	NCE Mean	SS Mean	Per. Rank	NCE Mean	SS Mean	Per. Rank
3 - 1982	5247	69	491	81	63	468	74	68	473	82	66	368	79	65	421	77	67	396	80	-	-	-
1981	5197	67	488	80	62	466	73	66	470	81	65	365	77	63	417	74	65	393	77	-	-	-
1980	5616	66	485	78	62	464	72	65	467	79	63	361	74	63	417	74	64	391	76	-	-	-
5 - 1982	5724	67	557	80	67	547	82	69	548	83	65	473	76	67	496	80	67	484	79	67	531	80
1981	6524	67	554	79	66	544	60	68	546	82	64	470	74	66	493	78	66	481	77	66	530	79
1980	7214	66	553	78	66	542	80	68	544	81	62	467	72	66	493	78	65	480	76	65	527	78
8 - 1982	7587	66	621	78	63	599	75	65	609	78	64	606	76	68	603	81	67	603	79	65	599	77
1981	7234	65	620	78	63	599	75	65	609	78	64	605	75	67	600	80	66	601	79	65	598	76
1980	7314	65	620	78	63	598	74	65	608	78	61	596	72	67	599	79	65	596	76	64	595	75
11 - 1982	7142	62	660	72	62	662	72	63	667	73	61	662	70	64	674	74	63	671	74	62	667	72
1981	7350	62	660	72	62	663	72	63	667	73	61	661	70	64	673	74	63	670	73	62	665	72
1980	7951	61	656	70	61	660	71	62	663	72	60	658	69	63	671	73	62	667	72	62	665	72

Table A3

PERCENTAGE OF STUDENT SCORES THAT MAY HAVE BEEN INFLUENCED BY THE CEILING EFFECT* ON THE CALIFORNIA ACHIEVEMENT TEST, FALL 1982

	Grade			
	3	5	8	11
TOTAL BATTERY	**	**	**	**
Phonic Analysis	33	-	-	-
Structural Analysis	54	-	-	-
Reading Vocabulary	57	27	16	25
Reading Comprehension	40	16	**	19
TOTAL READING	15	12	**	15
Spelling	27	20	11	12
Language Mechanics	38	18	23	23
Language Expression	40	27	12	19
TOTAL LANGUAGE	25	**	**	**
Math Computation	**	**	19	23
Math Concepts and Applications	10	**	**	22
TOTAL MATH	**	**	**	16
Reference Skills	-	49	31	45

*Students scoring within 1 Standard Error of Measurement of the maximum score. This is a reasonable range for possible score change due to careless error. These could be students who may have failed to achieve the maximum score because of careless errors.

**There is no ceiling effect for these subtests and totals because it is possible to score at the 99th percentile even if the student is 1 Standard Error of Measurement below the maximum score.

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Table A4

CALIFORNIA ACHIEVEMENT TESTS RESULTS FOR MCPS ASIAN STUDENTS 1980-1982

		TOTAL BATTERY		Phonic Analysis		Structural Analysis		Reading Vocabulary		Reading Comprehension		TOTAL READING		Spelling	
Grade/Year	No. Tested	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank
3 - 1982	423	73	86	59	67	66	78	61	70	61	70	64	75	69	82
1981	368	73	86	60	68	66	78	62	72	62	72	65	76	68	80
1980	320	71	84	60	68	65	78	63	73	63	73	65	76	68	80
5 - 1982	448	72	85	-	-	-	-	62	72	64	75	64	75	66	78
1981	459	74	87	-	-	-	-	64	75	66	78	66	78	67	79
1980	358	73	86	-	-	-	-	66	78	64	75	65	76	67	79
8 - 1982	505	70	83	-	-	-	-	60	68	63	73	62	72	63	73
1981	387	71	84	-	-	-	-	64	75	66	78	66	78	65	76
1980	359	73	86	-	-	-	-	65	76	67	79	67	79	65	76
11 - 1982	388	67	79	-	-	-	-	57	63	59	67	59	67	61	70
1981	353	66	78	-	-	-	-	57	63	57	67	58	65	61	70
1980	338	66	78	-	-	-	-	58	65	59	67	59	67	63	73

		Language Mechanics		Language Expression		TOTAL LANGUAGE		Math Computation		Math Concepts & Applications		TOTAL MATH		Reference Skills	
Grade/Year	No. Tested	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank
3 - 1982	423	73	86	63	73	70	83	77	90	69	82	75	88	-	-
1981	368	73	86	62	72	69	82	77	90	69	82	75	88	-	-
1980	320	72	85	64	75	70	83	73	86	68	80	72	85	-	-
5 - 1982	448	73	86	67	79	71	84	76	89	72	85	76	89	70	83
1981	459	73	86	69	82	73	86	75	88	73	86	76	89	72	85
1980	358	73	86	67	79	71	84	74	87	72	85	75	88	71	84
8 - 1982	505	68	80	61	70	65	76	76	89	74	87	76	89	67	79
1981	387	68	80	64	75	67	79	76	89	74	87	76	89	69	82
1980	359	72	85	66	78	70	83	75	88	75	88	76	89	70	83
11 - 1982	388	64	75	60	68	62	72	72	85	72	85	73	86	63	73
1981	353	64	75	60	68	63	73	71	84	71	84	72	85	61	70
1980	338	64	75	59	67	62	72	70	83	71	84	72	85	63	73

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Table A5

CALIFORNIA ACHIEVEMENT TESTS RESULTS FOR MCPS BLACK STUDENTS 1980-1982

Grade/Year	No. Tested	TOTAL BATTERY NCE Mean	TOTAL BATTERY Per. Rank	Phonic Analysis NCE Mean	Phonic Analysis Per. Rank	Structural Analysis NCE Mean	Structural Analysis Per Rank	Reading Vocabulary NCE Mean	Reading Vocabulary Per. Rank	Reading Comprehension NCE Mean	Reading Comprehension Per. Rank	TOTAL READING NCE Mean	TOTAL READING Per. Rank	Spelling NCE Mean	Spelling Per. Rank
3 - 1982	646	52	54	48	46	54	58	49	48	53	56	51	52	53	56
1981	688	51	52	48	46	53	56	50	50	51	52	50	50	53	56
1980	740	49	48	46	42	50	50	47	44	49	48	47	44	52	54
5 - 1982	762	53	56	-	-	-	-	52	54	51	52	52	54	53	56
1981	820	53	56	-	-	-	-	53	56	52	54	52	54	53	56
1980	856	51	52	-	-	-	-	51	52	50	50	51	52	51	52
8 - 1982	928	51	52	-	-	-	-	49	48	52	54	51	52	52	54
1981	872	50	50	-	-	-	-	49	48	51	52	50	50	51	52
1980	828	50	50	-	-	-	-	49	48	51	52	50	50	50	50
11 - 1982	788	47	44	-	-	-	-	47	44	46	42	47	44	48	46
1981	758	47	44	-	-	-	-	47	44	47	44	47	44	48	46
1980	784	44	39	-	-	-	-	44	39	44	39	43	37	47	44

Grade/Year	No. Tested	Language Mechanics NCE Mean	Language Mechanics Per. Rank	Language Expression NCE Mean	Language Expression Per. Rank	TOTAL LANGUAGE NCE Mean	TOTAL LANGUAGE Per. Rank	Math Computation NCE Mean	Math Computation Per. Rank	Math Concepts & Applications NCE Mean	Math Concepts & Applications Per. Rank	TOTAL MATH NCE Mean	TOTAL MATH Per. Rank	Reference Skills NCE Mean	Reference Skills Per. Rank
3 - 1982	646	56	61	53	56	55	59	53	56	51	52	53	56	-	-
1981	688	56	61	52	54	54	58	51	52	50	50	51	52	-	-
1980	740	53	56	50	50	52	54	48	46	49	48	49	48	-	-
5 - 1982	762	55	59	54	58	55	59	53	56	51	52	52	54	56	61
1981	820	54	58	54	58	55	59	53	56	51	52	52	54	55	59
1980	856	52	54	51	52	52	54	50	50	50	50	50	50	53	56
8 - 1982	928	52	54	50	50	51	52	52	54	53	56	52	54	53	56
1981	872	52	54	50	50	51	52	51	52	52	54	51	52	53	56
1980	828	51	52	50	50	50	50	50	50	52	54	51	52	52	54
11 - 1982	788	47	44	47	44	47	44	48	46	48	46	48	46	50	50
1981	758	47	44	47	44	47	44	47	44	48	46	47	44	49	48
1980	784	45	41	45	41	44	39	45	41	45	41	45	41	48	46

Table A6

CALIFORNIA ACHIEVEMENT TESTS RESULTS FOR MCPS HISPANIC STUDENTS 1980-1982

Grade/Year	No. Tested	TOTAL BATTERY		Phonic Analysis		Structural Analysis		Reading Vocabulary		Reading Comprehension		TOTAL READING		Spelling	
		NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank
3 - 1982	219	56	61	49	48	54	58	51	52	54	58	52	54	53	56
1981	181	58	65	52	54	57	63	54	58	56	61	56	61	53	56
1980	165	57	63	52	54	57	63	54	58	54	58	55	59	53	56
5 - 1982	223	57	63	-	-	-	-	53	56	54	58	54	58	54	58
1981	236	58	65	-	-	-	-	55	59	56	61	56	61	53	56
1980	216	61	70	-	-	-	-	58	65	59	67	58	65	56	61
8 - 1982	260	56	61	-	-	-	-	54	58	55	59	55	59	50	50
1981	243	59	67	-	-	-	-	57	63	57	63	58	65	52	54
1980	234	59	67	-	-	-	-	57	63	59	67	59	67	52	54
11 - 1982	236	54	58	-	-	-	-	53	56	53	56	53	56	51	52
1981	248	56	61	-	-	-	-	55	59	53	56	55	59	53	56
1980	263	55	59	-	-	-	-	55	59	53	56	54	58	52	54

Grade/Year	No. Tested	Language Mechanics		Language Expression		TOTAL LANGUAGE		Math Computation		Math Concepts & Applications		TOTAL MATH		Reference Skills	
		NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank
3 - 1982	219	60	68	53	56	57	63	59	67	55	59	58	65	-	-
1981	181	62	72	56	61	60	68	59	67	56	61	58	65	-	-
1980	165	61	70	56	61	59	67	58	65	55	59	57	63	-	-
5 - 1982	223	59	67	56	61	58	65	59	67	57	63	59	67	60	68
1981	236	60	68	57	63	59	67	58	65	58	65	59	67	60	68
1980	216	62	72	60	68	62	72	60	68	62	72	62	72	62	72
8 - 1982	260	57	63	54	58	55	59	58	65	58	65	59	67	57	63
1981	243	59	67	58	65	59	67	59	67	60	68	60	68	59	67
1980	234	60	68	58	65	59	67	57	63	60	68	59	67	59	67
11 - 1982	236	53	56	53	56	53	56	54	58	56	61	55	59	54	58
1981	248	56	61	54	58	56	61	55	59	58	65	57	63	55	59
1980	263	53	56	52	54	53	56	55	59	58	65	56	61	54	58

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Table A7

CALIFORNIA ACHIEVEMENT TESTS RESULTS
FOR MCPS WHITE STUDENTS
1980-1982

		TOTAL BATTERY		Phonic Analysis		Structural Analysis		Reading Vocabulary		Reading Comprehension		TOTAL READING		Spelling	
Grade/Year	No. Tested	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank
3 - 1982	3948	69	82	59	67	65	76	65	76	65	76	66	78	62	72
1981	3955	68	80	58	65	64	75	64	75	64	75	65	76	61	70
1980	4388	67	79	58	65	63	73	64	75	63	73	64	75	61	70
5 - 1982	4288	71	84	-	-	-	-	67	79	66	78	67	79	63	73
1981	4999	69	82	-	-	-	-	66	78	66	78	67	79	61	70
1980	5775	69	82	-	-	-	-	66	78	65	76	66	78	61	70
8 - 1982	5878	69	82	-	-	-	-	67	79	67	79	68	80	60	68
1981	5710	69	82	-	-	-	-	67	79	67	79	68	80	59	67
1980	5878	67	79	-	-	-	-	66	78	66	78	67	79	58	65
11 - 1982	5713	66	78	-	-	-	-	65	76	65	76	66	78	59	67
1981	5981	66	78	-	-	-	-	64	75	64	75	65	76	58	65
1980	6552	65	76	-	-	-	-	64	75	64	75	65	76	59	67

		Language Mechanics		Language Expression		TOTAL LANGUAGE		Math Computation		Math Concepts & Applications		TOTAL MATH		Reference Skills	
Grade/Year	No. Tested	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank
3 - 1982	3948	71	84	65	76	70	83	68	80	67	79	69	82	-	-
1981	3955	69	82	65	76	69	82	66	78	65	76	67	79	-	-
1980	4388	68	80	64	75	68	80	64	75	65	76	66	78	-	-
5 - 1982	4288	69	82	70	83	72	85	66	78	69	82	69	82	69	82
1981	4999	68	80	69	82	71	84	65	76	68	80	68	80	68	80
1980	5775	68	80	68	80	70	83	64	75	68	80	67	79	67	79
8 - 1982	5878	68	80	66	78	68	80	65	76	70	83	69	82	67	79
1981	5710	68	80	66	78	68	80	65	76	69	82	68	80	66	78
1980	5878	67	79	65	76	67	79	63	73	68	80	66	78	65	76
11 - 1982	5713	64	75	64	75	65	76	62	72	66	78	65	76	65	76
1981	5981	64	75	64	75	65	76	62	72	65	76	65	76	64	75
1980	6552	63	73	64	75	64	75	62	72	65	76	64	75	64	75

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TABLE A8

LONGITUDINAL RESULTS ON THE CALIFORNIA ACHIEVEMENT TESTS FOR STUDENTS TESTED IN GRADE 3 (1980) AND GRADE 5 (1982), BY RACE

		ASIAN		BLACK		HISPANIC		WHITE		TOTAL	
	GRADE	NCE	PR	NCE	PR	NCE	PR	NCE	PR	NCE	PR
TOTAL BATTERY	3	70	83	51	52	57	63	68	80	66	78
	5	77	90	54	58	61	70	71	84	69	82
Reading Vocabulary	3	62	72	49	48	53	56	65	76	63	73
	5	68	80	54	58	58	65	68	80	66	78
Reading Comprehension	3	62	72	50	50	54	58	64	75	62	72
	5	69	82	52	54	56	61	67	79	65	76
Total Reading	3	64	75	49	48	54	58	65	76	63	73
	5	69	82	53	56	57	63	65	76	66	78
Spelling	3	68	80	53	56	52	54	63	73	61	70
	5	70	83	53	56	57	63	63	73	62	72
Language Mechanics	3	73	86	56	61	60	68	70	83	68	80
	5	76	89	57	63	62	72	70	83	69	82
Language Expression	3	63	73	52	54	56	61	65	76	63	73
	5	72	85	55	59	59	67	70	83	68	80
Total Language	3	70	83	54	58	58	65	69	82	67	79
	5	76	89	56	61	61	70	72	85	70	83
Math Computation	3	72	85	49	48	59	67	66	78	64	75
	5	76	89	53	56	61	70	67	79	65	76
Math Concepts and Applications	3	67	79	51	52	55	59	66	78	64	75
	5	75	88	52	54	60	68	70	83	68	80
Total Math	3	71	84	50	50	58	65	67	79	65	76
	5	77	90	53	56	61	70	70	83	68	80
Number Tested	3	277		538		123		3558		4498	
	5	277		538		123		3558		4498	

TABLE A9

NONLONGITUDINAL RESULTS ON THE CALIFORNIA ACHIEVEMENT TESTS FOR STUDENTS TESTED ONLY IN GRADE 3 (1980) OR GRADE 5 (1982), BY RACE

		ASIAN		BLACK		HISPANIC		WHITE		TOTAL	
	GRADE	NCE	PR	NCE	PR	NCE	PR	NCE	PR	NCE	PR
TOTAL BATTERY	3	74	87	44	39	54	58	61	70	58	65
	5	65	76	51	52	53	56	66	78	62	72
Reading Vocabulary	3	65	76	42	35	53	56	59	67	56	61
	5	52	54	48	46	47	44	64	75	58	65
Reading Comprehension	3	66	78	45	41	53	56	59	67	57	63
	5	57	63	49	48	51	52	63	73	59	67
Total Reading	3	68	80	42	35	52	54	59	67	56	61
	5	55	59	49	48	49	48	64	75	58	65
Spelling	3	69	82	48	46	52	54	56	61	55	59
	5	60	68	51	52	51	52	59	67	57	63
Language Mechanics	3	69	82	48	46	62	72	62	72	60	68
	5	67	79	52	54	54	58	66	78	63	73
Language Expression	3	66	78	45	41	54	58	59	67	57	63
	5	58	65	52	54	52	54	67	79	61	70
Total Language	3	69	82	46	42	59	67	62	72	59	67
	5	63	73	52	54	54	58	68	80	63	73
Math Computation	3	78	91	47	44	54	58	59	67	57	63
	5	76	89	53	56	57	63	63	73	62	72
Math Concepts and Applications	3	70	83	44	39	52	54	60	68	58	65
	5	67	79	49	48	53	56	66	78	62	72
Total Math	3	76	89	45	41	53	56	61	70	58	65
	5	73	36	51	52	55	59	65	76	63	73
Number Tested	3	50		198		43		821		1114	
	5	168		216		98		674		1157	

TABLE A10

PERCENTAGE OF STUDENTS IN EACH RACIAL/ETHNIC GROUP SCORING AT EACH STANINE OF THE CALIFORNIA ACHIEVEMENT TESTS TOTAL BATTERY

GRADE 3

STANINE	ASIAN	BLACK	HISPANIC	WHITE	COUNTY	NORM**
1	0	1	0	0	0	4
2	0	3	2	1	1	7
3	1	10	9	3	4	12
4	7	23	18	8	10	17
5	12	19	20	12	13	20
6	18	20	22	21	21	17
7	18	10	14	19	17	12
8	11	6	5	13	12	7
9	31	6	9	23	21	4
NUMBER	423	647	219	3955	5255*	

GRADE 5

STANINE	ASIAN	BLACK	HISPANIC	WHITE	COUNTY	NORM**
1	0	1	0	0	0	4
2	0	4	3	1	1	7
3	2	10	7	2	3	12
4	5	21	18	7	9	17
5	11	20	20	13	14	20
6	18	21	18	19	19	17
7	20	10	14	19	18	12
8	17	7	7	16	15	7
9	27	5	10	23	21	4
NUMBER	448	764	223	4300	5738*	

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TABLE A10 (continued)

PERCENTAGE OF STUDENTS IN EACH RACIAL/ETHNIC GROUP SCORING AT EACH STANINE OF THE CALIFORNIA ACHIEVEMENT TESTS TOTAL BATTERY

GRADE 8

STANINE	ASIAN	BLACK	HISPANIC	WHITE	COUNTY	NORM**
1	0	3	1	0	1	4
2	1	4	4	1	1	7
3	2	10	6	2	3	12
4	9	24	17	7	10	17
5	15	21	19	14	15	20
6	17	17	23	19	19	17
7	18	11	14	20	19	12
8	12	5	9	15	13	7
9	26	4	6	21	19	4
NUMBER	507	956	263	5933	7675*	

GRADE 11

STANINE	ASIAN	BLACK	HISPANIC	WHITE	COUNTY	NORM**
1	1	2	1	0	1	4
2	2	5	4	1	2	7
3	5	17	11	3	5	12
4	12	23	17	10	11	17
5	16	19	23	14	15	20
6	17	15	15	20	19	17
7	12	8	11	18	16	12
8	10	3	7	12	11	7
9	22	3	5	17	15	4
NUMBER	412	796	244	5735	7204*	

*County total does not equal the sum of the four racial/ethnic groups shown because it includes other small groups.

**Students in national sample who were used to develop the test norms.

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TABLE A11

CALIFORNIA ACHIEVEMENT TESTS RESULTS BY RACE FOR 1982 MCPS TESTING AND THE NATIONAL NORM GROUP

(Scores reported are the normal curve equivalent (NCE) scores for the mean raw scores.)

	BLACK			HISPANIC			OTHER		
	MCPS	NAT'L	DIFF	MCPS	NAT'L	DIFF	MCPS	NAT'L	DIFF
GRADE 3									
TOTAL BATTERY	51	29	22	53	35	18	66	48	18
TOTAL READING	48	29	19	49	34	15	59	48	11
TOTAL LANGUAGE	52	32	20	54	39	15	67	50	17
TOTAL MATH	53	32	21	57	39	18	68	50	18
GRADE 5									
TOTAL BATTERY	51	34	17	55	37	18	67	50	17
TOTAL READING	50	34	16	52	36	16	62	49	13
TOTAL LANGUAGE	53	35	18	54	38	16	68	50	15
TOTAL MATH	52	34	18	58	38	20	66	50	16
GRADE 8									
TOTAL BATTERY	51	33	18	55	39	16	67	51	16
TOTAL READING	51	37	14	54	42	12	65	54	11
TOTAL LANGUAGE	49	35	14	53	42	11	64	52	12
TOTAL MATH	52	31	21	59	38	21	67	50	17

Table A12

PERCENTAGE OF STUDENTS TESTED
BY RACIAL/ETHNIC GROUPS CALIFORNIA ACHIEVEMENT TESTS
1980 TO 1982

		Asian		Black		Hispanic		White		Total*	
		N	%	N	%	N	%	N	%	N	%
GRADE 3	1982	423	84	646	93	219	82	3948	97	5247	95
	1981	368	77	688	92	181	68	3955	96	5197	93
	1980	320	79	740	95	165	66	4388	96	5616	94
GRADE 5	1982	448	86	762	94	223	80	4288	97	5724	95
	1981	459	84	820	95	236	81	4999	98	6524	96
	1980	358	81	856	97	216	80	5775	98	7214	97
GRADE 8	1982	505	94	928	97	260	88	5878	98	7587	97
	1981	387	88	872	95	243	80	5710	97	7234	96
	1980	359	85	828	94	234	81	5878	96	7314	95
GRADE 11	1982	388	75	788	86	236	69	5713	90	7142	88
	1981	353	75	758	85	248	74	5981	89	7350	87
	1980	338	79	784	80	263	72	6552	88	7951	86
TOTAL	1982	1764	85	3124	93	938	80	19827	95	25700	94
	1981	1567	81	3138	92	908	76	20645	95	26305	93
	1980	1375	81	3208	92	878	75	22593	94	28095	93

*The number reported for the Total group does not equal the sum of the numbers for each racial group because no data are reported for American Indians. That group is too small to provide reliable data.

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Table A13

CALIFORNIA ACHIEVEMENT TESTS RESULTS
FOR MCPS FEMALE STUDENTS
1980-1982

Grade/Year	No. Tested	TOTAL BATTERY		Phonic Analysis		Structural Analysis		Reading Vocabulary		Reading Comprehension		TOTAL READING		Spelling	
		NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank
3 - 1982	2611	68	80	59	67	64	75	63	73	65	76	65	76	64	75
1981	2579	66	78	58	65	63	73	62	72	63	73	64	75	63	73
1980	2745	65	76	57	63	62	72	62	72	63	73	63	73	63	73
5 - 1982	2860	69	82	-	-	-	-	64	75	65	76	65	76	63	73
1981	3247	68	80	-	-	-	-	64	75	64	75	65	76	62	72
1980	3555	67	79	-	-	-	-	64	75	64	75	64	75	62	72
8 - 1982	3878	68	80	-	-	-	-	64	75	66	78	66	78	62	72
1981	3796	67	79	-	-	-	-	63	73	66	78	65	76	61	70
1980	3650	67	79	-	-	-	-	63	73	65	76	65	76	61	70
11 - 1982	3596	66	78	-	-	-	-	63	73	63	73	64	75	61	70
1981	3738	65	76	-	-	-	-	62	72	63	73	63	73	61	70
1980	4015	64	75	-	-	-	-	61	70	62	72	62	72	61	70

Grade/Year	No. Tested	Language Mechanics		Language Expression		TOTAL LANGUAGE		Math Computation		Math Concepts & Applications		TOTAL MATH		Reference Skills	
		NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank	NCE Mean	Per. Rank
3 - 1982	2611	71	84	65	76	70	83	66	78	64	75	67	79	-	-
1981	2579	70	83	64	75	69	82	64	75	63	73	64	75	-	-
1980	2745	69	82	64	75	68	80	62	72	62	72	63	73	-	-
5 - 1982	2860	69	82	69	82	71	84	65	76	66	78	67	79	68	80
1981	3247	69	82	69	82	71	84	65	76	65	76	66	78	67	79
1980	3555	68	80	68	80	70	83	64	75	65	76	65	76	66	78
8 - 1982	3878	69	82	66	78	69	82	66	78	67	79	67	79	66	78
1981	3796	68	80	66	78	58	80	66	78	66	78	67	79	66	78
1980	3650	69	82	66	78	69	82	64	75	66	78	66	78	65	76
11 - 1982	3596	65	76	65	76	66	78	62	72	63	73	63	73	64	75
1981	3738	65	76	64	75	66	78	61	70	62	72	62	72	63	73
1980	4015	64	75	63	73	65	76	60	68	62	72	62	72	63	73

Table A16

CALIFORNIA ACHIEVEMENT TESTS RESULTS FOR MCPS MALE STUDENTS 1980-1982

Grade/Year	No. Tested	TOTAL BATTERY NCE Mean	TOTAL BATTERY Per. Rank	Phonic Analysis NCE Mean	Phonic Analysis Per. Rank	Structural Analysis NCE Mean	Structural Analysis Per. Rank	Reading Vocabulary NCE Mean	Reading Vocabulary Per. Rank	Reading Comprehension NCE Mean	Reading Comprehension Per. Rank	TOTAL READING NCE Mean	TOTAL READING Per. Rank	Spelling NCE Mean	Spelling Per. Rank
3 - 1982	2636	66	78	56	61	62	72	61	70	61	70	62	72	58	65
1981	2618	65	76	56	61	61	70	61	70	60	68	61	70	58	65
1980	2871	63	73	55	59	59	67	61	70	59	67	60	68	58	65
5 - 1982	2864	67	79	-	-	-	-	65	76	63	73	64	75	59	67
1981	3277	66	78	-	-	-	-	65	76	63	73	64	75	59	67
1980	3664	64	75	-	-	-	-	65	76	62	72	64	75	59	67
8 - 1982	3709	65	76	-	-	-	-	65	76	64	75	65	76	55	59
1981	3573	64	75	-	-	-	-	66	78	64	75	66	78	55	59
1980	3664	64	75	-	-	-	-	64	75	63	73	65	76	54	58
11 - 1982	3546	62	72	-	-	-	-	61	70	61	70	62	72	54	58
1981	3612	62	72	-	-	-	-	61	70	61	70	62	72	53	56
1980	3936	62	72	-	-	-	-	61	70	61	70	62	72	54	58

Grade/Year	No. Tested	Language Mechanics NCE Mean	Language Mechanics Per. Rank	Language Expression NCE Mean	Language Expression Per. Rank	TOTAL LANGUAGE NCE Mean	TOTAL LANGUAGE Per. Rank	Math Computation NCE Mean	Math Computation Per. Rank	Math Concepts & Applications NCE Mean	Math Concepts & Applications Per. Rank	TOTAL MATH NCE Mean	TOTAL MATH Per. Rank	Reference Skills NCE Mean	Reference Skills Per. Rank
3 - 1982	2636	66	78	61	70	65	76	66	78	65	76	67	79	-	
1981	2618	65	76	61	70	64	75	65	76	63	73	65	76	-	-
1980	2871	64	75	60	68	63	73	63	73	63	73	64	75	-	-
5 - 1982	2864	66	78	65	76	67	79	64	75	68	80	67	79	66	78
1981	3277	64	75	64	75	66	78	63	73	67	79	66	78	65	76
1980	3659	64	75	63	73	65	76	61	70	67	79	65	76	65	76
8 - 1982	3709	63	73	61	70	62	72	62	72	68	80	66	78	63	73
1981	3573	62	72	61	70	62	72	62	72	68	80	65	76	63	73
1980	3664	62	72	60	68	62	72	59	67	67	79	64	75	62	72
11 - 1982	3546	58	65	59	67	59	67	60	68	64	75	63	73	61	70
1981	3612	58	65	60	68	60	68	60	68	65	76	63	73	61	70
1980	3936	58	65	59	67	59	67	60	68	65	76	63	73	61	70

APPENDIX B

TECHNICAL TESTING TERMS

The following section provides a reference for the technical testing terms used throughout this report. The terms are defined; their uses are stated; and precautions about their interpretation are provided. The terms are listed in alphabetical order.

CRITERION-REFERENCED TEST (CRT)

Definition

A test based on specific learning objectives (or teaching objectives), usually within a narrow range of subject matter or skills. The tests are designed to measure the knowledge or skills the student has attained. The Maryland Functional Reading Test (MFRT) is an example of a CRT.

Use

CRTs provide information about the extent to which the student has attained the learning objective(s).

Precaution(s)

1. CRTs are often designed so a student can answer all or almost all of the questions correctly or incorrectly depending on the extent to which the student has attained the skills being measured. They are not designed to yield information about different levels of achievement and, therefore, cannot usually be used to rank students on specific skills.

2. To be useful measures of specific skills, CRTs must have a sufficient number of questions measuring each particular skill included on the test. Although what is "sufficient" is not a fixed number, there should, in most cases, be at least five questions which measure a skill. A test purporting to be a CRT which has fewer than five questions per skill should be viewed with skepticism.

GRADE EQUIVALENT SCORES (GE)

Definition

The grade equivalent of a given raw score on any test estimates the grade level at which the typical pupil achieves this raw score. The digit(s) to the left of the decimal point represent the grade; the digit to the right of the decimal point represents the month within the grade according to the following table:

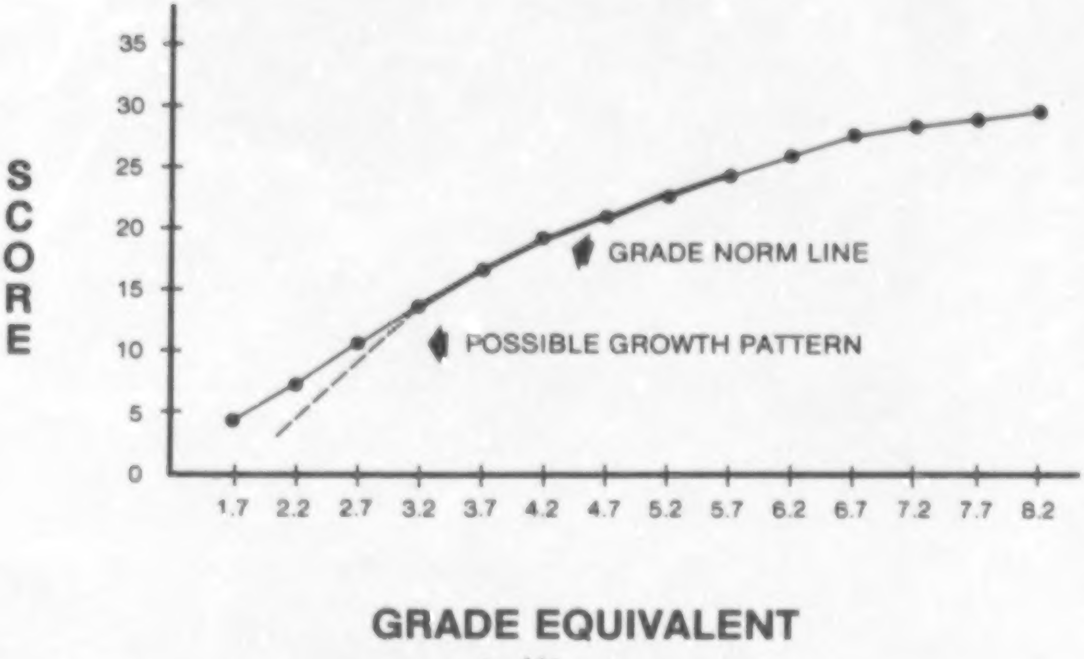
Number	Month
0	September
1	October
2	November
3	December
4	January
5	February
6	March
7	April
8	May
9	June-August

An example of how a test publisher might derive grade equivalents can be useful in understanding GE. The example presented below represents the best methodology currently in use. Many tests are normed with fewer samples.

If the publisher is norming a fourth grade test, he will test a representative sample in Grades 3, 4, and 5. In each grade, the sample, or two comparable samples, will be tested in the fall (November) and the spring (April). Thus, the grade levels being tested as 3.2, 3.7, 4.2, 4.7, 5.2, and 5.7. (Often publishers test only once a year.)

The average raw test score for the students in each group is computed and plotted on a graph similar to the one below. The mean scores are indicated by "." on the graph. All other grade-and-month values are estimated by interpolation between the means and extrapolation beyond the means. The GEs beyond the grade range of students in the norming sample should be regarded as no better than rough estimates.

Figure B1



Use

GEs provide a familiar referent for test scores.

Precautions

1. The grade equivalent score does not indicate the grade level of work that a student can perform. It simply estimates the grade level of the typical student in the norming sample achieving a given raw score. For example, suppose a fourth grade student has a score with a grade equivalent of 5.4 on a fourth grade test. This does not mean that a fourth grade student can do work which is done in January in the fifth grade. It simply estimates that this student did as well on a fourth grade test as the typical student in January of the fifth grade. However, remember that if the norming sample for the fourth grade test did not include any fifth grade students, this estimate is very tentative.

2. Grade equivalent scores should not be added and subtracted, because they are not an equal distance apart at all points. They are developed under an assumption that learning occurs equally during the school year. In fact, students tend to learn more at different times in the year. From a strict statistical point of view, this lack of equal score intervals means that mean GE scores should not be computed. However, if the GE scores are converted to Normal Curve Equivalent scores which do have this equal interval quality, the mean score computed from the converted scores is generally very close to that computed from the GEs, especially if the grade equivalents represent a wide range of possible scores.

3. The attempt to build a scale based on the assumption of equal learning cited in Number 2 above results in differential GE gains for raw score changes. What occurs is that a one raw score point change may cause a one-month change in GE at one place in the norm table and a five-month gain elsewhere. The largest changes in GE generally happen in the extremes of score distribution.

   An example of the unequal GE differences between raw scores is shown below. These scores are taken from the ITBS seventh grade spelling test.

Grade	Test	Raw Score	Grade Equivalent	Difference in Grade Equiv.
7	Spelling	7	3.5	
7		8	4.0	.5
7		9	4.4	.4
7	Spelling	25	8.4	
7		26	8.5	.1
7		27	8.7	.2

4. Grade equivalents generally have a wider range at higher grade levels. This leads to the situation that a student who has the same PR in Grades 3 and 5 will probably be further above (or below) the median in GE terms in Grade 5. This means that if he/she has a high PR in both grades, the gain in GE terms will be more than two years. If he/she has a low PR, the gain will be less than two GEs. Therefore, if a constant expected GE gain were established for all students, it would be too high for some and too low for others. The example below from ITBS norms demonstrates this problem.

PR	Grade 3	Grade 5	Grade Equivalent Change
90	5.1	7.5	2.4
50	3.6	5.6	2.0
10	2.6	4.1	1.5

5. Because a grade equivalent score represents the performance of a typical student at a given grade level, approximately half of the students in a nationwide sample would be expected to score below grade level.

6. Grade equivalents should not be compared across subject areas as they have different meanings. For example, mathematics is more grade-related than reading; and, therefore, the GEs are generally less spread out for math than for reading.

7. Grade equivalents should not be compared across different tests because they may have different meanings due to different norming samples.

INTERQUARTILE RANGE

Definition

Quartiles are scores (points in a distribution) that divide a score distribution into quarters. Twenty-five percent of the scores are at or below the first quartile (Q1), 50 percent are at or below the second quartile (Q2, which is also the median), and 75 percent are at or below the third quartile (Q3). The interquartile range includes the band of scores that lies between Q1 and Q3, or the middle 50 percent of the scores.

Use

By eliminating the effect of the lowest and highest quarters of the distribution, the interquartile range provides a measure of how the typical students in a group performed.

Precaution(s)

Eliminating the extreme scores may be removing important information such as the location of pockets of students needing compensatory or gifted programs. If the median is close to either quartile, it could indicate a large number of students at that end of the distribution who might require such services.

MEAN

Definition

The sum of the scores divided by the number of scores.

Use

The mean is used as a measure of the performance of the "typical" student in a group.

Precaution

1. In a small group, the mean can be overly influenced by a few extreme scores. Thus, if a few scores in a distribution are very low but most are quite high, the mean will be depressed by the low scores more than the median. In groups where there are a few extremely low scores, the mean will, therefore, be lower than the median. Therefore, it is often useful to compare the mean with the median.

2. Use of the mean provides no information about the spread of scores.

MEDIAN

Definition

The score that divides a test score distribution in half is known as the median. Half of the scores are above the median, half are below. The median is the score that has a percentile rank of 50.

Use

The median is used as a measure of the performance of the "typical" student in a group.

Precaution(s)

1. See Precaution 1 for "mean."

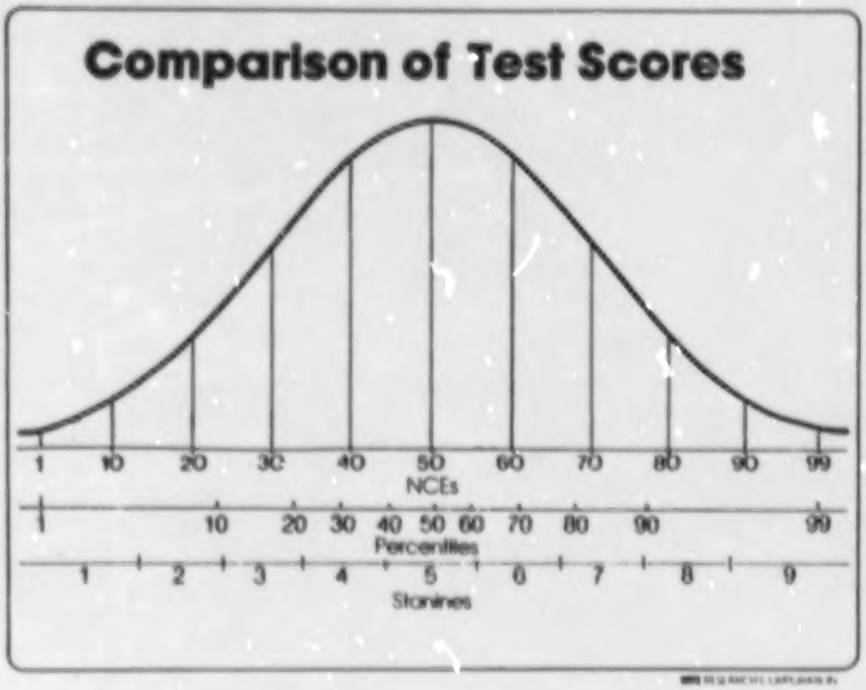
2. Use of the median provides no information about the spread of scores.

NORMAL CURVE

Definition

A normal curve is a distribution of scores or values which, in graphic form, is bell-shaped as shown in Figure B2. In a normal curve distribution, the mean and the median are at the same point. The majority of the scores are clustered around the mean/median. Sixty-eight percent of the scores are within one standard deviation of the mean/median, and 95 percent are within two standard deviations. Scores which are more than three standard deviations from the mean/median are rather rare, occurring less than 1 percent of the time.

Figure B2



Use

Because of its well-documented statistical properties, the normal curve distribution is often used in reporting test scores as an aid in interpreting scores of groups or individuals.

Precautions

The normal curve distribution is a statistical or mathematical ideal. It is not a graphic description of what a particular distribution should be; distributions which do not conform to the normal curve are not "abnormal." Many variables can affect the distribution of a particular set of scores: test content, difficulty of the test items, suitability of the test for the group to which it is administered.

NORMAL CURVE EQUIVALENT SCORES (NCE)

Definition

NCEs divide the normal distribution into 99 segments, units, or scores (Figure B2). Scores range from 1-99, with a mean/median of 50. NCEs can be related to percentile ranks as shown in the comparative scales in Figure B2.

Uses

1. NCEs can be subjected to arithmetic operations. Therefore, mean NCEs can be computed, and differences in NCEs can be compared at all points in the score distribution.[1]

2. NCEs can be used in analyses of group data (for reasons above). In addition, NCEs are scaled to reveal small changes, something which stanine scores will not do consistently because of the large score range at each stanine point.

Precaution(s)

1. Use of NCEs for evaluating individualized performance is to be done with caution. A change of five NCE units on a test score is within the error range for individuals on most standardized tests. However, since NCEs give a false sense of precision--and hence of security--the careless test user could consider such a change meaningful.

2. NCEs are difficult to interpret when presented alone. After an analysis has been performed on the basis of NCEs, results are often converted to some more readily understandable scale like percentile ranks.

NORM-REFERENCED TEST (NRT)

Definition

The NRT is designed to rank students according to the number of test items answered correctly (i.e., according to raw score). Ranking is usually also done in relation to the performance of a norming sample. The California Achievement Tests is an example of an NRT.

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[1] In a strict statistical sense, it is probably incorrect to subject any test scores to arithmetic operations. However, NCEs, standard scores with an underlying normal distribution, raw scores, and stanines come closer than any other score scales to having equal-interval properties which permit arithmetic operations.

Use

Norm-referenced tests provide information about which students know the most about the content included on the test.

Precaution(s)

1. A good NRT is designed to enable between 40 and 70 percent of the examinees to answer any given item correctly. Many items are therefore too difficult for a majority of examinees to get right. This means that most NRTs are not very good tests of what an individual student knows (as opposed to criterion-referenced tests). Rather, they are measures of who knows the most about the test content.

2. NRTs often include only one or two questions which measure achievement of a given skill or objective. Information about student performance on a particular objective is, therefore, usually not very reliable.

NORMS

Definition

Statistics that describe the test performance of specified groups, such as students in a given grade, age range, type of community, etc.

Use

Norms provide a way of relating raw scores to a more meaningful score scale, such as percentile ranks, stanines, grade equivalents, or a standard score, so that it can be determined how a student performed relative to a "representative" sample of students similar in some way.

Precaution(s)

1. Norming samples cannot be perfectly representative of a large group of students. For most major standardized tests, publishers use sophisticated sampling procedures to determine the norming sample. However, there will always be a small error factor. This means that caution must be used when comparing the scores from two different tests or even from two levels of the same test because the levels may not have used the same group of students. The following is an example of what might happen because of this. If the students in the norming sample for Test A are brighter than those in the sample for Test B, the norms for the two tests will not be equivalent. A student who then takes both tests will be likely to attain a lower percentile rank on Test A because he/she is being compared with a brighter group of students on a test which has "more difficult" norms.

2. Test publishers often provide norms for different times of the year such as fall, winter, and spring. However, they may not have used a norming sample at all of these times, which means that some of the norms are estimates. A test manual should be consulted to determine when a given test was normed. Estimated norms for any other time of year should be viewed with caution.

3. Test norms are not necessarily derived every year, and therefore some norms may be several years old. However, it is common practice to compare current student performance on a given test with the performance of the national norming sample. Caution must therefore be exercised in interpreting the meaning of an individual's status. For example, a student who took a test in 1978 and who achieved a percentile rank of 60 probably did not score higher than 60 percent of the students taking the test in 1978. Rather, the individual scored higher than 60 percent of the students in the norming sample who took the test in the past, for example in 1970.

4. The above considerations may weaken the usefulness of older norms. If changes have occurred in curricula, current students may be better prepared in some skills or subjects than were students in the norming sample, less well prepared, or simply differently prepared. Thus, comparisons of percentile ranks across years may be clouded by changing curricula.

5. Norms are derived so that half of the representative group is expected to be below average. This means that half of the group will be below grade level, below a percentile rank of 50 and below the mean. Therefore, it is extremely difficult to have all of the students in any large group perform above the average.

PERCENTILE RANK (PR)

Definition

The percentile rank (PR) expresses the percentage of students in the norming sample who scored at or below a given score. For example, if a raw score of 30 has a percentile rank of 78, then 78 percent of the students in the norming sample scored at or below 30 items correct.

Use

PRs provide easily interpretable information about how a given student's performance on a test compares with the performance of students in the norming sample.

Precaution(s)

1. PRs should not be added nor subtracted because they are not an equal distance apart at all points. For example, Figure 3.2 clearly shows that an increase of 10 points between percentile ranks 45 and 55 is not the same distance as an increase of 10 points between percentile ranks 85 and 95. A person would have to show a larger amount of improvement to achieve the second increase.

2. On a test of fewer than 100 questions, it is not possible for every whole number of the percentile rank scale to have an associated raw score. Therefore, in such circumstances, a one-point increase in raw score can cause an increase of several percentile rank units. What might appear to be substantial increase on the percentile rank scale is really only an increase of one additional question correct. This caveat applies to virtually all tests in standardized batteries.

3. Percentile ranks should not be confused with percent of correct answers (raw scores). They have completely different meanings.

RAW SCORE

Definition

The number of questions or test items answered correctly

Use

Raw scores can be used to report the number of questions answered correctly.

Precaution(s)

1. A raw score has no meaning other than the number of items answered correctly. It provides no interpretative information.

2. Raw scores can be quite misleading when reported by themselves because the meaning of raw scores differs from test to test. For example, if one 50-item test is easy and one 50-item test is difficult, a raw score of 30 on the difficult test might represent better performance than a raw score of 45 on the easier test.

3. Subjecting raw scores to arithmetic operations (e.g. addition, etc.) is a questionable procedure. Generally, raw scores do not have the equal interval property required for these operations. This is because the same raw score can be obtained by different students who get different combinations of items correct. These items will most likely vary in their level of difficulty. Thus, identical raw scores will possibly represent differential levels of achievement.

RELIABILITY

Definition

Reliability refers to the extent to which a test is consistent in what it measures. There are three major types of reliability, all expressed as a coefficient ranging from 0 (complete lack of consistency) to 1 (perfect consistency).

1. Internal consistency is the degree to which all the questions on a test measure the same thing. For example, a mathematics test that measures only addition of fractions will probably have a higher internal consistency coefficient than one that measures several different mathematical operations. This would be especially important for achievement tests that measure specific skills.

2. Stability is the degree to which a person will achieve the same score on a test that is taken twice within a time period of anything from a few days to a year or two. This is important in an instrument which measures a trait like natural ability, which is not expected to change over time.

3. Equivalence is the degree to which a person will achieve the same score on two forms of the same test. This is important for any test in which two forms are to be used interchangeably.

Use

Reliability is a measure of the quality of a test.

Precaution(s)

The type of reliability appropriate for a given testing situation should be used.

SCALE SCORE (SS)

Definition

Scale Scores range from 0 to 999 and provide a link between all levels of the California Achievement Tests.

Uses

1. Scale scores can be subjected to arithmetic operations like Normal Curve Equivalent scores. Therefore, means can be computed and differences in SSs can be compared meaningfully.

2. Scale scores provide a way of comparing scores on different levels of the California Achievement Tests and, therefore, provide a way of measuring growth.

3. The capability of comparing results from different test levels also means that scale scores help to make out-of-level testing possible. This testing procedure allows for a student to take a test for a grade other than his own and still have results (percentile ranks and stanines) based on norms for his/her grade.

Precaution

1. Scale scores should not be used to compare scores in different subject areas. They were not developed so that equivalent scores in two subject areas would indicate equivalent levels of achievement. Any comparison of scale scores should be done within subject areas.

2. There are not "typical" scale scores for each grade or test level. In fact, the ranges of SSs in the various levels overlap considerably.

STANDARD DEVIATION (SD)

Definition

Standard Deviation (SD) is a measure of the dispersion in a set of scores. The closer the scores cluster around the mean, the smaller the SD will be.

Use

As a measure of the spread in a set of scores, the SD can be used to assist in determining the degree of importance of score differences. For example, a difference of 2 points would probably not have much meaning if the SD were 20 but could be quite important if the SD were 0.5.

Precaution(s)

None

STANDARD ERROR OF MEASUREMENT (SEM)

Definition

The SEM is an estimate of the magnitude of error in a test score. Possible causes of error in scores include lucky or unlucky guesses, a student's not feeling well or failing to follow directions, the fact that test questions may be only a sample of those that could be asked, sloppiness, laziness, etc.

Uses

1. The SEM provides a way of determining the possible fluctuation in test scores which would be obtained if an individual were to take the same test a number of times. It indicates how far a particular obtained score might deviate from the individual's "true" score (the score the individual would obtain if there were no error in the test). It is usually assumed that the scores obtained from repeated testing would conform to the normal curve

distribution. Therefore, in practice, it is assumed that there is a probability of 68:100 that the "true" score is within one SEM of the obtained score and that there is a probability of 95:100 that the obtained score is within two SEMs of the obtained score.

2. The SEM can be used in significance testing to provide a way of determining whether differences in test scores or group mean scores are statistically significant (that they vary more than can be reasonably attributed to testing error).

Precaution(s)

None

STANINE

Definition

A stanine is one of the scores of a nine-point division of the normal distribution. Stanine scores range from 1 to 9 with a mean and median of 5. As shown in Figure B2, each stanine has a range of corresponding percentile ranks or raw scores.

Uses

1. Stanines can be subjected to arithmetic operations (addition, etc.). Therefore, the mean of distributions can be computed, and differences in stanine scores can be compared at all points in the distribution except, in some cases, at the extreme stanine scores of 1 and 9.

2. Stanines do not give a false sense of accuracy of a given score because each stanine covers a range of raw scores. The stanine scale is therefore useful for reporting individuals' scores. Differences in stanines are more likely to represent change beyond that which can be attributed to error than are other kinds of scores.

Precaution(s)

As can be seen in Figure B2, interpretation of differences in stanine scores is clouded by the range within a given stanine. For example, if an individual's score increases from the top of the Stanine-4 range to the bottom of the Stanine-5 range, it represents less improvement than an increase from the bottom of the Stanine-3 range to the top of the Stanine-4 range. However, on cursory examination, it would seem as if the first increase were the greater.

STATISTICAL SIGNIFICANCE TEST

Definition

A significance test is a statistical procedure used to determine whether two (or more) groups differ on a trait more than could normally be expected if testing error or sampling error were assumed to be the cause of the difference.

Use

Under highly controlled conditions (as in experiments, etc.), tests of statistical significance are used to test hypotheses. When variables cannot be controlled (as in the countywide testing program), the results from such a test are open to question.

Precaution(s)

1. Results of significance tests are reported as probability statements. If the reported probability in less than .01, the chance is less than 1:100 that the difference between groups can be attributed to testing error. If the probability is .001, the chance is less than 1:1000 that the difference can be attributed to testing error. However, there is always *some* chance (1:1000, etc.) that the difference was caused by error.

2. When a large number of tests of significance are performed, some differences will turn out to be statistically significant by chance alone. That is, since there is always some chance that a difference can be caused by error (1:20, 1:100, 1:1000, etc.), a certain number of significant differences can be expected to occur because of error. There is no way to determine whether a particular statistically significant difference was or was not caused by error. Again, only a probability can be determined.

3. When tests of significance are used to evaluate the difference of means, the larger the group the smaller the difference in means needs to be for statistical significance. The smaller the group, the larger the difference must be. For example, a difference of only 1-2 months on the grade equivalent scale, or a fraction of a raw-score point, will be statistically significant for groups of several thousand students. In contrast, a difference of as much as six months may be required for significance with a group of one hundred students. Because many of the comparisons in this report involve very large groups, no significant tests of differences and means were performed. While small differences would have been statistically significant, they would not have been educationally meaningful.

VALIDITY

Definition

Validity is the extent to which a test does the job for which it is used. There are three major types of validity that a test may possess.

1. Content validity is most important for achievement tests. This requires that a test contain questions that adequately reflect the content the test is supposed to measure.
2. Criterion-related validity is most important for placement tests, college admissions tests, or tests on which employment decisions are based. Performance on the test must be highly correlated with performance in the program, success in college, or success on the job for which the test is a screening instrument.
3. Construct validity is most important in psychological instruments. Tests of ability are exampies of such instruments. Construct validity requires that the test adequately discriminate between people who do or do not have a particular trait.

Use

Validity is a measure or concept that helps one evaluate the quality of a test.

Precaution(s)

The type of validity appropriate for a given testing situation should be used.